

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

62.71 Indexed 1912

217042

RECEIVED
AUG 29 1920
U.S. DEPARTMENT OF AGRICULTURE

ILLUSTRATED DESCRIPTIVE CATALOGUE



1909

WOODBURN NURSERIES
F. W. SETTLEMIER, PROPR.
WOODBURN, OREGON

Established in 1863 by J. H. Settlemier
420 Acres Devoted to Nursery Purposes

Illustrated Descriptive Catalogue

Established in 1863 by J. H. Settlemier.
420 Acres devoted to Nursery Purposes.

Fruit and Ornamental Trees

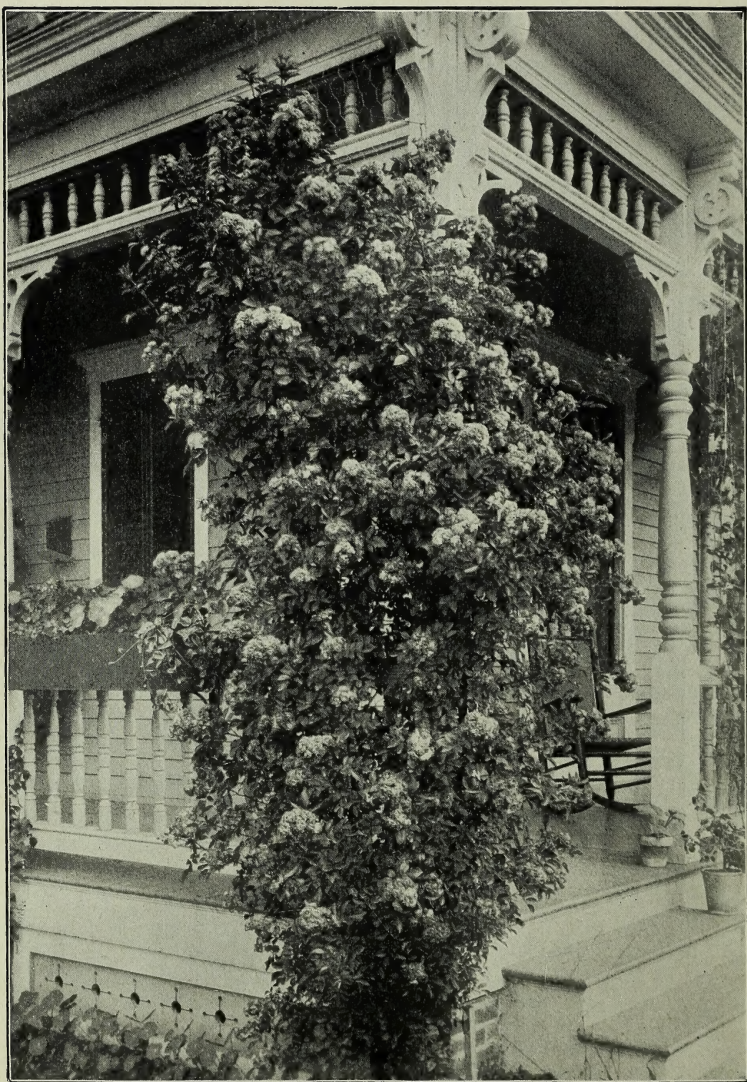
Grape Vines, Small Fruits and Shrubs, Climbing Vines,
Plants, Rose Bushes, etc. Together with valuable hints on the Selection, Propagation and Care of Stock.

Spray Calendar and Formulas.

Woodburn Nurseries

F. W. Settlemier, Propr.

Woodburn, Oregon



CRIMSON RAMBLER

THE WOODBURN NURSERIES.

HOW OUR STOCK IS PROPAGATED.

Apples, Pears, Plums and Cherries.—Our one idea in propagating stock is to solve the question "how can we grow the healthiest and hardiest stock?" and not "how can we grow the cheapest?" By the process known as "root grafting" we could grow apple trees at much less cost than by budding, and for a time make a larger profit on them. If we sell to a man a second time we must please him the first time, and this we cannot do with root grafted stock as ordinarily done on piece roots.

We make this exception, however, to the rigid rule of Nurserymen of less experience, namely a few and only a few varieties make just as strong roots and as straight, thrifty and in every way desirable trees by grafting on whole roots (not on piece roots) as by budding. Over forty-five years' experience and observation confirms this fact to us.

Root grafting is done as follows: Apple and pear seedlings of one year's growth are dug in the fall and packed in sand. In the winter, the tops are cut off and the roots cut into small pieces about three inches long. A small piece of twig called a "scion," taken from a tree of the variety desired to be propagated, is grafted, by a series of cuts on one of these small pieces of root. The wounds are then tied up with a string, and the grafts packed in sand ready to plant the next spring in nursery rows.

The budding process is as follows: Large one-year seedlings are used, those which fail to reach the size of one-fourth to seven-sixteenths of an inch in diameter the first year, are transplanted and grown the second year. The seedlings are dug in the fall, packed in sand in the cellar, and early in the spring set out in rows in the nursery. Having strong roots all of them, they make a good growth by midsummer, when they are "budded." This is done by cutting a perpendicular slit in the bark on the north side of the seedling (so that the bud is shaded by the seedling itself), a cross slit is made at the top of the perpendicular cut, and the lower corners of bark carefully peeled back from the wood.

Then the leaf bud, cut from the same season's growth or the variety desired to be propagated, is removed with both the bark and a thin slice of wood attached (Fig. 1, a), and slipped down into the cut on the seedling (Fig. 1, b), and the incision bound around with cotton twine (Fig. 2), so as to exclude air and water, until the bark of the "bud" has joined with the bark and wood of the seedling. The tie is then cut off, and the bud remains dormant until the following year, while the root continues growing. The following year the seedling is cut back to the bud (at 6, Fig. 3), and all sprouts taken off and kept off, so as to throw all the strength into the "bud" which is to become the future tree.



FIG. 2.



FIG. 1.

The difference between root-grafts and budded stock will be apparent to anyone. The grafts have a root only one year old, it is usually taken from a smaller and weaker seedling, and has only a piece of root after all. But the bud is inserted in a selected seedling either one or two years old, the entire root being retained, and as the bud is dormant the first year, the root gains another season's growth so that before the stem of the future tree begins to grow the root is two or three years old firmly

established, and prepared to throw the bud into a straight growth of four or five feet the first season, so that it can be "headed," namely, the top cut off about three and one-half or four and one-half feet from the ground, so that it can throw out branches the second year and make a "head," instead of spindling up into a mere whip.

The root of the budded stock has a big start and keeps it, so that when called upon to support the bud, it pushes it right along, and at the end of two or three years you have a perfect, smooth, symmetrical tree, with a fine root. It is not our aim to furnish a tree with a big stem, but with many roots. In buying trees you are not buying them for the amount of cord wood they will make. We start the tree for you, but you must develop it with budded trees you have roots furnished which will enable you to do it.



Fig. 3.

Not only do we exercise the greatest care in propagating and growing our trees, but we even import the greater part of our seedlings. All our pear and plum seedlings, and a great part of our apple and cherry seedlings, we get from France. Our apple seedlings which are raised here, are raised from French crab seed, so that from the very seeds up to the perfect tree nothing is omitted which will help to produce a tough, hardy tree. The advantage in using the French seedlings is that they are almost entirely free from blight. The same care is exercised in growing our plums and cherries, as in growing our apples. Our cherries are budded on pure Mazzard and Mahaleb stock.

We believe the above will sufficiently explain why our prices are above those dealers and small growers who go about hawking their inferior trees. If the difference in the quality of the tree grown by these men and those grown by scientific nurserymen is taken into account, the planter would not be long in determining that the difference in cost between the two would but ill compensate him for wasting time and land in this cheap class of stock. Budded stock is not only longer lived, but it bears earlier and heavier crops than root grafted stock. Apples, Pears, Plums, Quinces, Cherries are shipped at the age of one to three years from the bud. Plum seedlings, Apricots and Peaches one year only.

HOW TO CARE FOR NURSERY STOCK WHEN RECEIVED.

Soak the trees with water, and either place them in a cellar and keep wet, or bury them in a trench, until the holes are ready for transplanting. If at all dry and shrivelled the best plan is to bury them root and branch in wet earth. If frozen, they should be buried in earth until the frost is removed.

Planting.—The broken or mutilated portions of the roots must be cut off, so as to leave the ends smooth and sound, and the ends of all the other roots should be pruned. From these ends the new fibrous roots usually start. The soil should be in as good condition as for a crop of corn. When planting upon the lawn or grass plots remove the sod to a diameter of four or five feet and keep this space well worked and free from weeds. Dig the hole deeper and larger than is necessary to admit all the roots in their natural position, keeping the surface and subsoil separate. Cut off broken and bruised roots and shorten the tops to half a dozen good buds, except for fall planting, when it is better to defer top pruning until the following spring. Work the best soil thoroughly among the roots and pack it hard about them. A severe pruning of the head of the newly set tree is absolutely necessary to make it correspond with the supply of new shoots that the shortened roots can give. See that they are all entirely free from any coarse manure, but in all parts packed in fine earth. Fill up the top of the hole with loose soil, so that the tree will stand about as in the nursery. A covering of coarse manure straw,

marsh hay or loose chip dirt during the first season will effectually prevent injury from drouth and is a benefit at all times. If the trees are tall and much exposed to winds, a stake should be driven beside the tree, to which it should be tied in such manner as to avoid chafing. Afterwards keep the ground worked and free from weeds, till the trees bear at least.

"Heeling in" stock received in the fall.—The practice of procuring supplies of trees in the fall is becoming more and more general as each season demonstrates its wisdom. It is more favorable time than spring, because the stock has just entered into dormant condition and is in no danger of starting to grow while in transit. In most sections all hardy varieties may be planted in the fall. Even when fall planting is not desirable by reason of severity of the climate, the stock may be procured in the fall and thus be on hand ready for the opportune moment in the spring. To insure success you have only to get the trees before freezing weather, and bury them in the following manner: choose a dry spot where no water will stand during the winter with no grass near it to invite mice. Dig a trench, throwing out enough dirt to admit one layer of roots below the surface, and place the trees in it, inclined at an angle of forty-five degrees or more. Widen the trench, throwing the soil among the roots in position, place another layer in the trench, reclining the tops on the others, and so on until all are in the trench, then finish by throwing up more soil until the tips of the trees are nearly or quite covered. It is also well to bank up the earth around the sides to insure more thorough protection. The exposed tops should then be taken covered with pine boughs, which insures them against any possibility of injury. Care should be taken to fill solid all the interslices among the roots. Too much care in doing this cannot be insisted upon, as every root which is not in close contact with the soil is sure to be killed. In the spring the trees will be on hand for transplanting at the earliest moment possible to do the work.

Pruning.—All fruit trees require more or less pruning from year to year. While the tree is young the head should be formed, and unnecessary branches be taken out so that they will leave small scars which will quickly heal over. The best time to prune is late in the winter or in early spring, when no more severe weather is anticipated, and when the trees will soon begin in the healing process.

Keep roots moist always.—A good plan is to mount a barrel on a wagon or sled, half fill with water or thin mud, put in the trees and drive along the rows, taking out each tree just as wanted for planting. Or, mix a thin soil of mud and water and dip the roots before taking to field, being careful to protect from the sun or wind until planted. Should the ground be dust dry it is well to pour three or four gallons of water in the whole after two-thirds full and properly tramped. Allow the water to disappear then fill with loose earth.

Starting trees right saves work, trouble and expense later. A one year tree cut back as directed usually put out shoots from the ground to the top. During the first summer it pays to go over each tree every two or three weeks rubbing off while young and tender, all shoots not required for the permanent head, for which are selected four or five strong shoots near the top, forming a well balanced head.

A fertilizer is frequently advisable, but under no circumstances should it be placed in the hole when the tree is planted. Many trees are killed or seriously injured by strong fertilizers coming in direct contact with the roots. After the tree is planted, distribute the fertilizer evenly near the surface of the ground and cover with about two inches of earth to hold in place; let the rains gradually carry it to the roots in the form that can be assimilated.

Our shipping season begins from October 1st to 15th, in fall, (we will not dig trees until mature) and continues until April 1st to 15th, inclusive. **Our system of packing** is perfect; each order is packed with reference to the distance it is to go, with due

allowance for possible delay. Nursery stock properly packed will carry to great distances. **Trees ready to bear** are frequently asked for. We will not grow nor offer them. We know that in nearly every case a good, thrifty one year or two year tree planted beside the so-called "ready to bear" will give the better results. There are exceptions, but as a general rule the transplanting of trees older than two or three years is a waste of time and money.

DISTANCE FOR PLANTING.

Apples	25 to 30 feet apart each way.
Pears and strong growing Cherries	20 " " " "
Duke and Morello Cherries	18 " " " "
Plums, Apricots and Peaches	20 to 25 " " " "
Grapes	rows 8 to 9 feet apart 7 to 9 feet in rows.
Currants and Gooseberries	4 feet apart.
Raspberries and Blackberries	3 to 4 by 5 to 7 feet apart.

NOTE.—A most excellent way in planting an apple orchard 30 feet apart is to plant peaches or small fruit between. By the time the apples require the ground the others will have passed their prime and can be removed.

NUMBER OF TREES ON AN ACRE.

40 feet apart each way	27	10 feet apart each way	435
30 " "	50	8 " "	680
25 " "	70	6 " "	1210
20 " "	110	5 " "	1742
18 " "	135	4 " "	2722
15 " "	200	3 " "	4840
12 " "	302		

RULE.—Multiply the distance in feet between the rows by the distance the plants are apart in the rows and the product will be the number of square feet for each plant or hill, which divided into the number of feet in an acre (43,560), will give the number of plants or trees to the acre.

SPRAYING.

The calendar shown on the following page was prepared by Prof. E. G. Lodeman, of Cornell University Agricultural Experimental Station. The most important points regarding sprays have been selected and arranged in such a manner that the grower can see at a glance what to apply and when to make the applications. The more important insect and fungous enemies are also mentioned, so that a fairly clear understanding of the work can be obtained by examining the accompanying table. When making the applications advised, other enemies than those mentioned are also kept under control, for only the most serious ones could be named in so brief an outline. The directions given have been carefully compiled from the latest results obtained by leading horticulturists and entomologists, and they may be followed with safety.

NOTICE.—In this calendar it will be seen that some applications are italicised and these are the ones which are most important. The number of applications given in each case has particular reference to localities in which the fungous and insect enemies are most abundant. If your crops are not troubled, when some applications are

advised, it is unnecessary to make any. It should be remembered that in all cases success is dependent upon the exercise of proper judgment in making applications. Know the enemy to be destroyed, know the remedies that are most effective, and finally, apply them at the proper season. Be prompt, thorough and persistent. Knowledge and good judgment are more necessary to success than any definite rules which can be laid down.

FORMULAS.

Bordeaux Mixture. Copper sulphate, 6 pounds; quicklime, 4 pounds; water, 40 gallons. Dissolve the copper sulphate by putting it in a bag of coarse cloth and hanging this in a vessel holding at least 4 gallons, so that it is just covered by the water. Use an earthen or wooden vessel. Slake the lime in an equal amount of water. Then mix the two and add enough water to make 40 gallons. It is then ready for immediate use. If the mixture is to be used on peach foliage it is advisable to add an extra pound of lime to the above formula. When applied to such plants as carnations or cabbages it will adhere better if about a pound of hard soap be dissolved in hot water and added to the mixture. For rots, mildews, and all fungous diseases.

Ammoniacal Copper Carbonate. Copper carbonate, 1 ounce; ammonia (1 volume 26% Beaumé, 7-8 volume of water), enough to dissolve the copper; water, 9 gallons. The copper carbonate is best dissolved in large bottles where it will keep indefinitely, and it should be diluted with water as required. For the same purposes as Bordeaux mixture.

Copper Sulphate Solution. Copper sulphate, 1 pound; water, 15 gallons. Dissolve the copper sulphate in the water, when it is ready for use. This should never be applied to foliage, but must be used before the buds break. For peaches and nectarines use 25 gallons of water. For fungous diseases.

Paris Green. Paris green, 1 pound; water, 200-300 gallons. If this mixture is to be used upon peach trees, 1 pound of quicklime should be added. Repeated applications will injure most foliage, unless lime is added. Paris green and Bordeaux mixture can be applied together with perfect safety. Use at the rate of four ounces of arsenites to 50 gallons of the mixture. The action of neither is weakened, and the Paris green loses all caustic properties. For insects which chew.

London Purple. This is used in the same proportion as Paris green, but as it is more caustic it should be applied with two or three times its weight of lime, or with the Bordeaux mixture. The composition of London purple is exceedingly variable, and unless good reasons exist for supposing that it contains as much arsenic as Paris green, use the latter poison. Do not use London purple on peach or plum trees unless considerable lime is added. For insects which chew.

Hellebore. Fresh white hellebore, 1 ounce; water, 3 gallons. Apply when thoroughly mixed. This poison is not so energetic as the arsenites and may be used a short time before the sprayed portions mature. For insects which chew.

Kerosene Emulsion. Hard soap, $\frac{1}{2}$ pound; boiling water, 1 gallon; kerosene, 2 gallons. Dissolve the soap in the water, add the kerosene, and churn with a pump for 5-10 minutes. Dilute 10 or 25 times before applying. Use strong emulsion for all scale insects. For insects which suck, as plant lice, mealy bugs, red spider, thrips, bark-lice or scale. Cabbage worms, currant worms and all insects which have soft bodies, can also be successfully treated.

SPRAY CALENDAR.

PLANT.	First Application.	Second Application.	Third Application.	Fourth Application.	Fifth Application.	Sixth Application.
APPLE (Scab, codlin moth, bud moth.)	When buds are swelling, copper sulphate solution.	Just before blossoms open, Bordeaux. For bud moth, Arsenites when leaf buds open.	When blossoms have fallen, Bordeaux and Arsenites.	8-12 days later, Bordeaux and Arsenites.	10-14 days later, Bordeaux.	10-14 days later, Bordeaux.
CHERRY (Red aphid slug)	As buds are breaking, Bordeaux; when aphids appear, Kerosene emulsion.	When fruit has set, Bordeaux. If slugs appear, dust leaves with air-slaked lime. Heliebore.	10-14 days if rot appears, Bordeaux.	10-14 days later, Ammoniacal copper carbonate.		
CURRENT (Mildew, worms.)	At first sign of worms, Arsenites.	10 days later, heliebore. If leaves mildew, Bordeaux.	If worms persist, Heliebore.			
GOOSEBERRY (Mildew, worms.)	When leaves expand, Bordeaux. For worms as above.	10-14 days later, Bordeaux. For worms as above.	10-14 days later, Ammoniacal copper carbonate. For worms as above.	10-14 days later, repeat third.		
GRAPE (Fungous diseases, Flea-beetle.)	In Spring when buds swell, copper sulphate solution. Paris green for flea beetle.	When leaves are 1-1½ inches in diameter, Bordeaux. Paris green for larvae of flea beetle.	When flowers have fallen, Bordeaux. Paris green as before.	10-14 days later, Bordeaux.	10-14 days later, if any disease appears, Bordeaux.	10-14 days, Ammoniacal copper carbonate. Make later applications of this if necessary.
PEACH, NECTARINE, APRICOT (Red, mildew.)	Before buds swell, copper sulphate solution.	Before flowers open, Bordeaux.	When fruit has set, Bordeaux.	When fruit is nearly grown, Ammoniacal copper carbonate.	5-10 days later, repeat fourth.	5-10 days later, repeat fourth if necessary.
PEAR (Leaf blight, scab, psylla, codlin moth.)	As buds are swelling, copper sulphate solution.	Just before blossoms open, Bordeaux Kerosene emulsion when leaves open for psylla.	After blossoms have fallen, Bordeaux and Arsenites. Kerosene emulsion if necessary.	8-12 days later, repeat third.	10-14 days later, Bordeaux. Kerosene emulsion applied forcibly for psylla.	10-14 days later, repeat if necessary.
PLUM (Fungous diseases, curculio.)	During first warm days of early spring, Bordeaux for black knot. When leaves and other fungous diseases are off in the fall, Kerosene emulsion for plum scale.	When buds are swelling, Bordeaux for black knot. During mid-winter, Kerosene emulsion for plum scale.	When blossoms have fallen, Bordeaux. Begin to cut every 2-4 days. For San José scale, Kerosene emulsion when young appear in spring and summer.	10-14 days later, Bordeaux. For trees for curculio, cut every 2-4 days. For San José scale, Kerosene emulsion when young appear in spring and summer.	10-20 days later, Bordeaux for black knot. Later applications may be necessary to prevent leaf spot and fruit rot, appear in summer, Kerosene Ammoniacal copper carbonate.	10-20 days later, Bordeaux for black knot. Later applications may be necessary to prevent leaf spot and fruit rot, appear in summer, Kerosene Ammoniacal copper carbonate.
QUINCE (Leaf and fruit spot.)	When blossom buds appear, Bordeaux.	When fruit has set, Bordeaux and Arsenites.	10-20 days later, Bordeaux.	10-20 days later, Bordeaux.	10-20 days later, Bordeaux.	
RASPBERRY (Leaf spot.)	Before buds break, copper sulphate solution. Cut out badly diseased canes.	During summer if rust appears on leaves, Bordeaux.	Repeat second if necessary.	Orange or red rust is treated best by destroying the affected plants.		
DEWBERRY (Mildew, black spot, red spider, aphids.)	For mildew, keep heating pipes painted with equal parts lime and sulphur. For aphids, spray plants once a week with Ammoniacal copper carbonate, mixed with water to form a thin paste.	For black spot, spray plants once a week with Ammoniacal copper carbonate, using fine spray.	For red spider, spray plants twice a week with Kerosene emulsion. Apply to under side of foliage.	For aphids, spray affected parts with Kerosene emulsion when necessary.		(Kerosene emulsion must be used very dilute, as rose foliage is easily injured by it.)

FRUIT DÉPARTMENT.

APPLES.

No other fruit occupies, in the north temperate zone, the commanding position of the apple. Its period of use extends nearly or quite through the year. Whether it be in size, form, or color, in flavor, sweet or sour, in infinite variety of shades, in crispness or tenderness, it will in some variety or other suit any taste.

No other farm crop will on the average produce one-fourth as much income per acre as a good apple orchard. The fact that six or eight years must elapse before a newly planted orchard will begin to bear, deters many from planting. But as a matter of fact the land can be used a large part of the time for crops, and no great investment is required to plant at the rate of 30 to 50 trees to the acre. When once in bearing with little actual time spent upon it each year, it will be an unfailing source of cash income, if properly selected from varieties recommended in our list.

Let no one be disappointed, if he misses from our list some names familiar to his childhood, varieties which the glamour of years and the voracious appetite of youth causes to stand out in memory so delightfully. That memory is often a delusion. We still propagate only those varieties which, having stood the test of time, are at this day holding their own with the best. Some old varieties, after being eclipsed for years by fungous diseases which made them well-nigh worthless, are now again worth growing by the victory of science over those diseases.

Many varieties of apples are known by different names in different sections, and are sometimes called for by names not known outside of particular localities. Fameuse for instance, is called Snow by some people, and Fallawater, Tulpehocken, etc.

Order nothing that you do not find in our list. If you wish some variety whose name you know locally, not given here, select the kind which has the same description, and you will make no mistake.

Ironclads. This term is applied nowadays to a class of trees that are hardy. Most of them are of Russian origin, adapted by their tough leathery leaves and hardy constitution, to withstand the extremities of the most severe climate. They will stand long, hot, dry summers, and extremely cold winters. Their parentage comes from lines long developed in the severe climate of the Russian plains. They are exceedingly fruitful, very early bearers, some of them, indeed, beginning to bear in the nursery row.

Codling Moth. This lays in the calyx end of the apple, the egg which produces the apple worm. To prevent see page 7.

Apple Scab. Some varieties, like Yellow Newton Pippin and Fall Pippin, are especially subject to this, which frequently destroys the crop. Spray with Bordeaux mixture. See Spray Calendar page 7.

Distances for Planting. Vigorous growing varieties in strong soil, thirty feet apart. Moderate growing varieties, twenty-five feet apart. Size when ready for shipment three to six feet, one to two years old from the bud.

SUMMER APPLES.

Caroline Red June—Small or medium, deep red, flesh very white, tender, juicy, with a brisk, sub-acid flavor, very good. Tree very vigorous, upright, an early and abundant bearer. August.

Dutch Mignone—Medium, roundish oblate, skin rather tough, flesh yellowish, a little coarse, tender, juicy, slightly sub-acid, core small.

Early Harvest—Medium to large, roundish, pale yellow, flesh white, tender, juicy, crisp, with a rich sub-acid flavor, fine. Tree moderate grower, erect, very productive. Middle to end of August.

Golden Sweet—Large, pale yellow, very sweet and good, vigorous, good bearer. August and September.

Keswick Codlin—Large, oblong, pale yellow, pleasant acid, quality fair. Tree erect and very vigorous, bears when quite young, and abundantly, excellent for cooking. July to October.

- Summer Sweet Paradise**—Fruit quite large, skin rather thick, pale green, flesh tender, crisp, very juicy, sweet and rich. August and September.
- Sweet June**—Medium size, round, flesh yellowish, very sweet and tender eating apple, fair for cooking. June and July.
- Red Astrachan**—Large, roundish, nearly covered with deep crimson overspread with a thick bloom, very handsome, juicy, good, rather acid. Tree of the hardiest, vigorous, and a good bearer. August.
- Tetofsky**—An extremely beautiful Russian apple. Medium, with a yellow skin, handsomely striped with red and covered with a whitish bloom, flesh juicy, sprightly, acid, aromatic. Tree of rather dwarfish habit, stocky, annual, abundant and exceedingly early bearer. Hardy as a crab. Usually begins to bear the second year after transplanting. One of the most profitable trees to plant for market. Should be in every fruit garden. Ironclad. August.
- Williams' Favorite**—Large, oblong, red, rich and excellent, a moderate grower and good bearer. Very highly esteemed. A handsome dessert apple. August.
- Yellow Transparent**—A Russian apple. The tree is hardy as a crab, a good upright grower, a very abundant, regular and early bearer, the fruit full medium size, color a rich transparent lemon yellow, with a faint flush on sunny side, flesh melting, juicy pleasant, sub-acid. Ten days earlier than the Early Harvest and is the earliest ripening apple known.

AUTUMN APPLES.

- Alexander (Princess Louise)**—A Russian apple. Large, deep red or crimson, flesh yellowish white, crisp, tender with pleasing flavor. Tree a moderate grower. Very hardy, one of the Iron clads. September and October.
- Canada Reinette**—Large, skin greenish yellow. Flesh yellowish white with a mild sub-acid flavor. December.
- Duchess of Oldenburg**—A Russian apple. Large yellow, streaked with red, and somewhat blushed, flesh, juicy and good, sub-acid. Tree a vigorous grower, and a young and abundant bearer. One of the Ironclads, so hardy that it succeeds where most of the other varieties fail. August and September.
- Fall Pippin**—Very large, roundish, oblong, yellow, flesh tender, rich and delicious. Tree vigorous, spreading and a fine bearer. Admirable for baking. October to December.
- Fall Beauty**—Fruit fair and handsome. Flesh white, tender, juicy, sub-acid, rather rich flavor. September and October.
- Gravenstein**—Large, roundish, yellow and striped with red, handsome, tender, juicy and high flavored. Tree vigorous and erect, very productive. September and October.
- Jersey Sweet**—Medium, striped red and green, tender, juicy and sweet. Tree vigorous and a good bearer. September and October.
- Maiden's Blush**—Large, flat, smooth, regular, with a fine, evenly shaded, red cheek or blush on a pale yellow ground, flesh white, tender, sprightly, with a pleasant sub-acid flavor, tree erect, vigorous, and a regular and abundant bearer. September and October.
- Rambo**—Medium, yellowish, streaked and mottled with dull red and somewhat dotted, tender, juicy and mild flavored, tree vigorous and a good bearer. September in the south. October to January in the north.
- Red Beitigheimer**—A rare and valuable German variety. Fruit large to very large, roundish inclining to conical, skin pale cream colored ground, mostly covered with purplish crimson, flesh white, firm, sub-acid with a brisk, pleasant flavor. Tree a vigorous grower and abundant bearer. This is one of the largest and handsomest varieties, and worthy of extensive cultivation. September.
- Twenty Ounce**—Very large, nearly round, yellow, striped with red, of fair quality, tree a vigorous, spreading grower, and a fine bearer. Excellent for baking. Very popular in the markets. October to January.
- Waxen**—Medium, pale yellow, oily, sprinkled with a few dots. Flesh whitish yellow, crisp, tender, juicy, mild, sub-acid. November and December.
- Vandevere Pippin**—Large, skin striped and blotched with light red on yellow, flesh greenish yellow, firm, crisp, brisk, sub-acid. November.

WINTER APPLES.

Arkansas Black—Large, skin black, dotted with whitish specks, flesh yellow, very juicy and delicious flavor, one of the best cooking apples.

Arkansas Beauty—Large size, color beautiful crimson, flavor rich, sub-acid, fine-grained. Free and good grower and enormous bearer. November to March.

American Pippin. Large, skin yellow, thickly specked with gray dots and slightly net-tled with thin russet. Flesh yellowish, juicy, rather coarse, rich aromatic sub-acid. December.

Akin (Akin Red)—Size and color very much like Jonathan, but keeps three months longer, quality even better than that most excellent apple. The best by far of all late keepers. The apple for the fancy trade. A regular bearer. Keeps until April or May, fine grained, crisp, spicy and mild. The ideal winter apple, is of good quality, medium size, red color, a late keeper, tree productive.

Bailey's Sweet—Large, roundish, conical, mottled and striped with deep red, flesh yellow and tender, with a mild, rich, sweet flavor. Moderate grower. November to March.

Babbitt—A strong, large grower, wood hard and tough, heavy bearer. Fruit one-third larger than Baldwin, brighter red, flesh fine grained, juicy, crisp, rich and of a peculiarly fine acid. Used, baking, stewing, pies or jelly, for each and all of which it is simply the best. In cooking it literally melts. Ready to cook as soon as grown but it is so acid that few like to eat it uncooked until the latter part of the season when it is a favorite eating apple.

Baldwin—Large, roundish, skin deep bright red, flesh juicy, crisp, sub-acid, good flavor, tree very vigorous, upright and productive, one of the most popular and profitable winter varieties. December to March.

Ben Davis—Large, handsome, striped, and of fair quality, tender, juicy, mild, sub-acid. Tree very hardy, a vigorous grower, constant and abundant bearer, highly esteemed as one of the most profitable market sorts. December to March.

Bismarck—Introduced from New Zealand. Very large, remarkably handsome and showy, color red on yellow ground, flesh yellow, quality, good, extremely hardy and prolific and bears very early. Promises to be valuable for market. November to February.

Blue Pearmain—Large, thin stripes of dark, purplish red over a dull ground and appearing bluish from the white bloom. Flesh greenish, mild rather rich and aromatic. October to February.

Cooper's Market—A popular apple. Medium size, fair quality, valuable on account of its great productiveness, long keeping qualities and handsome appearance. January to May.

Delaware Red Winter.



BISMARCK

- English Russet**—Medium, skin pale greenish yellow, about two-thirds covered with russet. Flesh yellowish white, firm, crisp. January to May.
- Fameuse** (Snow apple)—Medium, roundish, deep crimson. Very handsome, flesh snowy white, tender, melting, juicy, high flavored, sub-acid, delicious. Tree moderate grower, very hardy and productive. November to January.
- Gano**—Originated in Missouri. Form conical, good size and smooth, deep red, shaded on sunny side to mahogany, very attractive, flesh pale yellow, fine grained, tender, pleasant, mild, sub-acid, is a good shipper and keeper, tree healthy, vigorous and hardy. An annual and prolific bearer. February to May.
- Golden Russet**—Medium, roundish, ovate, dull russet, with a tinge of red on the sunny side, flesh greenish, crisp, juicy and high flavored, tree vigorous, very hardy, a good bearer. November to April.
- Grimes' Golden**—Medium to large, cylindrical, golden yellow, sprinkled with gray dots, flesh crisp, tender, juicy, sprightly, very good to best. Tree hardy, vigorous, productive, bears early. January to April.
- Glori Mundi**—Very large, white skin, greenish yellow. Flesh coarse, tender with a pleasant sub-acid flavor. October to January.
- Hubbardston Nonsuch** (American Blush)—Large, round, beautiful yellow, striped and splashed with red, flesh tender, juicy and fine, with agreeable rich flavor, hard to distinguish between sweetness and acidity, tree vigorous, bears large crops. November to January.
- Hyde's King of the West**—Medium, pale yellow, striped with red. Flesh very firm. October and November.
- Jonathan**—Medium size, red and yellow, flesh tender, juicy and rich, a moderate grower shoots light-colored, slender and spreading, very productive. One of the best varieties either for table or market. November to March.
- Jefferies**—Fruit medium, oblate, inclining to conic, yellow, shaded and splashed with crimson, and thickly covered with large whitish dots. Flesh white, tender, juicy, with a rich, mild, sub-acid flavor. Very good. September.
- Jeniton**—Medium, skin yellowish, shaded with red and striped with crimson. Flesh whitish yellow, tender, juicy, pleasant, sub-acid. February to June.
- King** (Tompkins County)—Largest size, oblate, yellowish ground, striped and covered with bright red, fragrant, spicy smelling, flesh very crisp, tender, rich, fine flavor, sub-acid, vigorous, productive in certain localities, hardy. A superb apple. November to April.
- Lawyer**—Large, dark red, covered with small dots, flesh firm, white, crisp, sprightly, aromatic, mild, sub-acid. A beautiful and desirable fruit. January to May.
- Lady**—A beautiful little dessert fruit, flat, pale yellow, with a brilliant red cheek, flesh crisp, juicy and pleasant, tree a moderate grower, forming a dense, erect head bearing large crops of fruit in clusters. The fruit brings the highest price in the city markets. December to May.
- Langford**—Large, skin red and striped, fruit of excellent quality and its superior keeping qualities recommend it to all. March.
- Lady Sweeting**—Large, skin nearly covered with red in the sun, but pale yellowish green in the shade. Flesh greenish white, tender, juicy and crisp with a delicious, agreeable perfumed flavor. March to May.
- McIntosh Red**—Large, roundish, skin mostly covered with bright red or crimson, almost purplish in the sun, flesh white, fine, very tender, juicy, mild, sub-acid. Tree vigorous, extremely hardy and long lived. Good annual bearer. Very desirable. November to February.
- Missouri Pippin**—Large, skin pale yellowish white, striped and splashed with red. Flesh whitish, juicy, sub-acid, good flavor. December to April.
- Northern Spy**—Large, roundish, slightly conical, somewhat ribbed, quite covered on the sunny side with dark crimson, and having a pale bloom, flesh white, tender, juicy, spicy, high flavored and delicious, sub-acid, retaining freshness of appearance and flavor until June. The tree is a remarkably vigorous, erect grower, and a great bearer. Requires thinning of the head to admit light and air freely to the fruit. Both leaf and blossom buds open a week later than other varieties. January to June.

- Paragon** (Mammoth Black Twig)—The fruit resembles Winesap, but is larger and superior in flavor, and a better keeper, color bright red, texture fine. Tree a strong grower, bears early and abundantly, holding its load well. December to May.
- Pewaukee**—A seedling from Duchess of Oldenburg. Medium to large, roundish, oblate, skin bright yellow, striped and splashed with dark red, and overspread with whitish dots, flesh white, tender, juicy, sub-acid, tree vigorous, extremely hardy, especially for cold and severe climates, one of the Ironclads. January to May.
- Red Canada** (Steele's Red Winter)—Medium oblate, red, flesh rich, sub-acid and delicious; tree a moderate and slender grower. A superior fruit for table or market. November to May.
- Rhode Island Greening**—Large, roundish, green or greenish yellow, tender, juicy and rich, rather acid, but high flavored and one of the best for cooking and dessert; tree vigorous, spreading, very crooked grower in the nursery, a great and constant bearer nearly everywhere. Toward the south ripens in the fall, but in the north a late keeper. December to April.
- Rome Beauty**—Large, yellow and bright red, flesh yellowish, tender, juicy, sub-acid, tree moderate grower, good bearer. December to March.
- Roxbury Russet**—Medium to large, greenish or yellow russet, surface rough, crisp, good sub-acid flavor, tree vigorous, productive. Its great popularity is due to its productiveness and long keeping. January to May.
- Red Romanite**—Medium, skin very smooth and handsome, richly streaked with deep red and yellow. Flesh yellow, firm and juicy, valuable for cider. February to May.
- Red Bellflower**—A seedling, being a cross between the Yellow Bellflower and the Red June. It has the deep, brilliant red of the Red June with its sprightly acid flavor, but the exact shape of a good sized Yellow Bellflower.
- Red Cheek Pippin** (Monmouth)—Large, skin pale yellow with a beautiful warm cheek and numerous russet dots. Flesh juicy, fine, brisk, aromatic, sub-acid. November to March.
- Salome**—Fruit of medium and uniform size, quality very good, which it retains even into summer, claimed to have been kept in excellent condition until October. Tree a strong grower, equals Wealthy in hardiness, holds its fruit firmly, even against wind storms, an early and annual bearer, although a heavier crop on alternate years. February to June.
- Shackleford**—Tree hardy, free grower, an early and profuse bearer. Fruit large, well colored, purplish-red in the sun, with a delicate bloom. Flesh yellow, flavor mild, sub-acid, aromatic. Long keeper.
- Senator**—Fruit medium to large, roundish, bright red on the greenish yellow ground, distinctly dotted. Flesh yellowish white, juicy, rich, pleasant, sub-acid, with an intense apple flavor. Small core. Tree a vigorous, symmetrical grower, an early and heavy bearer. Season mid-winter.
- Seek-no-Further** (Westfield)—Above medium, dull red, dotted with russet, flesh white, fine grained, rich flavor, excellent. December to February.
- Spitzenburgh** (Esopus)—Medium to large, deep red, flesh yellow, crisp, sub-acid, with a spicy, and delicious flavor, tree rather slow grower, requires top working, high culture and good care, under which it forms a large spreading tree, a good bearer and deservedly a most popular variety. December to April.
- Stark**—Large, roundish, greenish yellow, shaded, sprinkled and striped with light and dark red nearly over the whole surface, and thickly sprinkled with light brown dots, flesh yellowish moderately juicy, mild, sub-acid, tree vigorous, an early and abundant bearer, hardy the fruit a long keeper and valuable market fruit. January to May.
- Swaar**—Large, pale yellow with dark dots, tender with a mild, rich agreeable flavor, tree a moderate grower, with good culture, one of the best of apples. November to May.
- Talman Sweet**—Medium size, pale yellow, slightly tinged with red, firm, rich and sweet, excellent for cooking, tree vigorous, very hardy and productive. November to April.

- Tulpehochen** (Fallawater)—Very large, round, yellowish green with dull red cheeks, juicy, crisp, pleasant, peculiar, sub-acid flavor, tree a vigorous grower, very productive even while young. November to March.
- Wagener**—Medium to large, light yellow, slightly tinged with red, firm, rich and crisp, juicy sub-acid, tree vigorous, upright, handsome, very productive. December to May.
- Walbridge**—Medium size, handsome pale yellow, striped with red, crisp, tender, juicy, a late keeper, tree very vigorous, extremely hardy, one of the Ironclads. January to May.
- Wealthy**—Medium, roundish, skin smooth oily, whitish yellow, mostly covered with dark red, flesh white, fine juicy, vinous, sub-acid, very good, one of the finest and best apples grown, tree vigorous, extremely hardy, one of the Ironclads, a very early and abundant bearer. Deserves the widest cultivation. November to February.
- White Winter Pearmain**—Medium, skin light yellowish green with a brownish cheek. Flesh tender, fine grained, mild, sub-acid, rich, aromatic flavor. March.
- White Bellflower**—Large skin, yellowish white with fine pinkish tinge in the sun. Flesh white, fine grained, tender, juicy, sub-acid. November to December.
- Winter Banana**—New, excellent. The name is most appropriate, as it has a delightful banana perfume. Fruit keeps well till spring, the color is a striking red blush on a deep yellow ground. It is of large size and very showy in appearance, roundish, inclining to conical, stalks three-fourths of an inch long, cavity moderate, apex shallow. Originated in Indiana.
- Winesap**—Large, roundish, deep red, medium quality, keeps well, tree a fair grower and good bearer. December to May.
- Wisner Dessert**—Size medium to large. Smooth, beautifully colored with yellow shaded with bright red, in stripe and blotches, marked with russet dots. Exquisitely delicious flavor, juicy, melting, buttery, pear-like texture. Tree a strong grower and extremely hardy. November to April.
- Wolfe River**—Very large, beautiful red in the sun on the yellow ground, strong grower and a good bearer. Original tree in Wisconsin is 30 years old, very healthy and extremely hardy. December to February.
- Yellow Bellflower**—Large, yellow with a blush in the sun, very tender, juicy, sub-acid, a beautiful and excellent apple, in use all winter, tree vigorous and a good bearer. November to April.
- York Imperial**—Medium, white shaded with crimson, flesh firm, crisp, juicy, pleasant, mild, sub-acid, tree vigorous, a good bearer. A popular variety. November to February.
- Yellow Newton Pippin** (Albermarle Pippin)—Medium to large, roundish, yellow, very firm, crisp, juicy, with a highly delicious sub-acid flavor, tree a very slow, feeble grower. One of the most famous American apples. A very late keeper. November to June.

CRAB APPLES.

All our cultivated sorts of apples came originally from a species of crab which is found wild in most parts of Europe. There are several kinds of wild crab native to this country, but our fine cultivated varieties do not arise from these. Certain fine varieties of crab apples are exceedingly valuable for the making of jelly and cider or vinegar. Other varieties are not suited to culinary purposes at all, but on account of their beautiful appearance, delicate texture and delicious flavor, are highly prized as dessert fruit.

They are extremely hardy, have all the vigor of the original apple tree, and can be planted in any kind of soil in the most exposed situation with perfect safety. They come into bearing very early, bear regularly and abundantly. The size of the fruit varies from one and one-half to two and one-half inches in diameter.

One familiar with only the small Siberian crabs can have but a faint conception of the size, beauty and excellence of the new and improved varieties which have been introduced in recent years.

General Grant—Fruit large, round, red to very dark red, flesh white, tender, mild sub-acid, excellent for dessert, and one of the best crabs introduced. Tree a vigorous and upright grower. October.

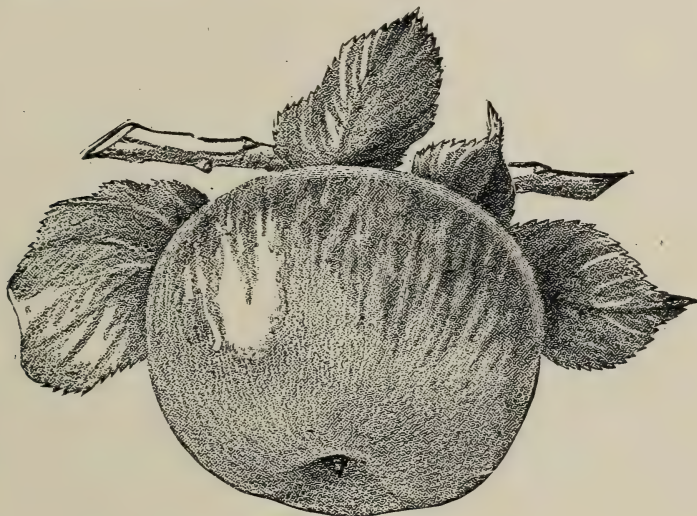
Golden Beauty of Paradise—A native crab of large size, oblong, deep yellow, good flavor very fragrant; tree a stronger grower than the Soulard, which it resembles in foliage. November to January.

Glowing Coal—Of enormous size, and said to be very valuable on account of its striking beauty and superior quality. A vigorous grower; flesh fine grained with sub-acid flavor. A most promising sort. November to February.

Hyslop—Almost as large as Early Strawberry apple; deep crimson, very popular on account of its size, beauty and hardiness. Vigorous. October to January.

Martha—A new variety, a seedling of the Duchess of Oldenburg. Resembles the Transcendent, but larger, a beautiful showy fruit and bears enormously. All things considered, we doubt if it has an equal among the crabs. Vigorous. September and October.

Red Siberian—Fruit small, about an inch in diameter, yellow with scarlet cheek, beautiful. Tree an erect, free grower, bears when two or three years old. September and October.



TRANSCENDENT

Soulard—Native. One of the largest of this class of apples, sour and astringent for eating, but has when cooked a fine quince-like flavor, color green, becoming yellow in spring, tree rather low, spreading, productive. Valued also for its fragrant perfume of the wild crab.

Transcendent—Skin yellow, striped with red, flesh crisp and juicy, an early and heavy bearer. One of the best known varieties. Vigorous. September and October.

Whitney's Seedling (No. 20)—Large, glossy green, striped, splashed with carmine, flesh firm, juicy and flavor very pleasant, ripe latter part of August. Tree a great bearer and very hardy, a vigorous, handsome grower, with a dark green glossy foliage. Vigorous. August.

Yellow Siberian (Golden Beauty)—Large, and of a beautiful golden yellow color. Tree vigorous. September.

PEARS.

This fruit may now be had in varieties, which will be in good eating condition from August until early spring. It is a very profitable fruit to grow and will especially reward good cultivation and care.

They should be gathered from ten days to two weeks before they are fully ripe, when, on gently lifting the fruit the stem will readily separate from the limb. Only the most perfect specimens should be marketed to insure the highest price, and they should be handled and packed with care to avoid bruising. They should be kept in a

dark place until fully matured. Winter pears may hang on the trees until there is danger of frost, and then placed in a dry cellar to mature.

The soil should be rich and well cultivated. A pear orchard should not be permitted to "go to grass." They should be pruned every year.

SUMMER.

Bartlett—Large size, with often a beautiful blush next the sun, buttery, very juicy and highly flavored, bears early and abundantly, very popular. Vigorous. August and September.

Clapp's Favorite—Very large, yellowish green to full yellow when ripe, marbled with dull red in the sun, and covered with small specks, vinous, melting and rich. Should be gathered early. Vigorous. August.

Madeleine—Medium, skin pale yellowish green. Flesh white, juicy, melting with a sweet and delicate flavor, slightly perfumed. Middle of July.

Souvenir du Congress—Fruit large to very large, resembling in form the Bartlett, skin smooth of a handsome yellow at maturity, washed with red or carmine on the side exposed to the sun. Flesh much like the Bartlett, having the musky flavor, though in less degree. September.

Tyson—Medium size, bright yellow, cheek shaded with reddish brown, buttery, very melting, flavor nearly sweet, aromatic, excellent. Vigorous. August.

Wilder's Early—Medium or rather small, regular in form, greenish yellow with a brownish red cheek, handsome, melting, sweet, pleasant, very good, tree a vigorous grower and great bearer. First of August.

AUTUMN.

Beurre Bosc—A large, fine pear, russet yellow, slight brownish red in the sun, flesh white, melting, juicy, sweet, perfumed, productive. Should be top worked. Moderate. September and October.

Beurre Clairgeau—Large, skin yellow, inclined to fawn, shaded with orange and crimson, covered with russet dots, flesh yellow, buttery, juicy, somewhat granular, with a sugary, perfumed, vinous flavor. Moderate. October and December.

Beurre d'Anjou—Large, greenish, sprinkled with russet, sometimes shaded with dull crimson, flesh whitish, buttery, melting, with a high rich flavor, very productive succeeds well on the quince, should be in every orchard. Vigorous. October to December.

Doyenne du Comice—Large, skin greenish yellow, becoming fine yellow at maturity. Flesh fine, white, melting, juicy, sweet, a little buttery, rich, slightly aromatic. October and November.

Duchess d' Angouleme—Very large, dull greenish yellow, streaked and spotted with russet, flesh white, buttery and very juicy with a rich and very excellent flavor. Vigorous. October and November.

Fall Butter—Skin a light, yellowish green, rarely with a blush. Flesh rather coarse, tender, very juicy, slightly vinous. September.

Flemish Beauty—Large, beautiful, juicy, melting, rich and fine, bearing good, hardy everywhere. Vigorous. September and October.

Howell—Large, light waxen yellow, with fine red cheek, handsome, rich, sweet, melting, perfumed aromatic flavor. An early and profuse bearer. Very hardy and valuable. Vigorous. September and October.

Idaho—Originated in Idaho. Very large, nearly round, yellow, with brownish red on sunny side, flesh melting, juicy, vinous. Hardy, vigorous and prolific. September and October.

Kieffer—Very large, bell shaped, light yellow, when fully ripe, sometimes with a slight blush, flesh white, crisp, juicy, of slightly quince flavor, of fair quality, exceedingly valuable for cooking or canning, which brings out its best spicy flavor, never rots at the core. The tree is an extraordinarily vigorous grower, and must be severely pruned. It is wonderfully abundant and regular bearer, and the fruit must be thinned for the best results. Extremely vigorous. October to December.

LeConte—Resembles the Bartlett in fruit and the time of ripening. Very profitable in the south. September.

Louis Bonne de Jersey—Rather large, greenish yellow, with a bright red cheek, juicy, buttery and melting, excellent, very productive. Vigorous. September to October.

Seckel—Small, skin rich yellowish brown with a deep brownish red cheek, flesh very fine grained, sweet, exceedingly juicy, melting, buttery, the richest and highest flavored pear known. Moderate. September and October.

Sheldon—Large size, yellow or greenish russet, with a richly shaded cheek, flesh a little coarse, melting, juicy, a very brisk, vinous, highly perfumed flavor, productive. Vigorous. October.

WINTER.

Beurre Gris d' Hiver—Medium, skin golden russet, with a fine sunny cheek. Flesh somewhat granular, juicy, buttery, melting, flavor rich and sugary. November to February.

Beurre Easter—Large, skin yellow a brownish red cheek. Flesh rich and melting, excellent. November to January.

Duchess de Bordeaux—Large size, with very thick, tough skin, which renders it a valuable keeper for winter use, melting, juicy, rich. Keeps till March.

Lincoln Coreless—Among the many new pears offered to the public, there is none but this which possesses the wonderful quality of being practically coreless. In season it is late, and the fruit is picked when green, and laid away to ripen. It will keep for several months. Specimens have been known to keep until March in an ordinary cellar. Fruit large, quality very good, rich, luscious, and juicy, and pronounced excellent by all who taste it. When ripe the skin is of a rich golden tint and the flesh is yellow. Tree a strong, healthy grower. They are hardy enduring the same climate that Bartlett will.

Winter Bartlett—This fine pear originated in Eugene, Oregon. The original tree stands in a door-yard of that city, and with possibly one or two exceptions, has borne a good crop for over 20 years. Fruit large, closely resembling the famous Bartlett in shape and appearance, but ripening four months later; skin yellow, slight blush on side exposed to sun; perfectly smooth, sprinkled with large russet brown dots; flesh not quite as fine grained as the Bartlett, but tender, juicy and melting and with a flavor almost identical to the Bartlett. Trees in the nursery rows not growing as straight as the Bartlett but fully as vigorous. This pear has been fruited for several years in this country, and is undoubtedly one of the few pears of recent introduction promising a real merit. Its close resemblance to the Bartlett, fine flavor, unexcelled keeping qualities, combined with its lateness, placed it in the front rank, as one of the finest of winter pears, worthy of extensive cultivation. In every way, a grand fruit.

Pound.—Very large, skin green; flesh firm and solid, stews red and bakes well.

Winter Nellis—Medium size, yellowish green and russet, fine grained, melting, rich and delicious, one of the best winter pears, very productive, should be top worked. Moderate. December.

Vicar of Wakefield—Large and long, skin fair, smooth, pale yellow. Flesh greenish white, generally juicy with a sprightly flavor, excellent for baking. December.

CHERRIES.

The Cherry thrives best on sandy soil, and there attains its highest perfection, but will do well in almost any situation except a wet one. It is one of the most ornamental of all fruit trees, which, with its delicious and refreshing fruit, makes it very desirable for planting near the dwelling, where beauty and shade, as well as fruit, are so desirable.

We divide them into two classes (1) Hearts and Bigarraeus, (2) Dukes and Morellos. The former are strong and vigorous growers, making large, open, spreading heads; their fruit is large, heart shaped, meaty and sweet. The Dukes and Morellos do not attain so large size, but are more hardy and less liable to injury from bursting bark; their fruit is usually sour.

HEARTS AND BIGARRAUS.

Black Eagle—Large, black, tender, rich juicy and high flavored. Tree a moderate grower and productive. June.

Black Tartarian—Very large, bright purplish black, half tender, juicy, very rich, excellent flavor, productive. Free. June.

Bing—This grand new Black cherry was originated by Seth Luelling, of Milwaukee, Oregon. One-half larger than Luelling (Black Republican). Flesh very solid, flavor of the highest quality. Tree thrifty, upright grower, very hardy and productive. A fine shipping and market variety.

Ce. tennial—A new cherry, a seedling of Napoleon Bigarreau. It is larger than its parent, more oblate in form, and beautifully marbled and splashed with crimson on a pale yellow ground. Its sweetness is very marked. Its keeping qualities, after being taken from the tree, will undoubtedly render it the best cherry for shipment.

Downton—Large, heart shaped, skin pale cream color. Flesh yellowish, without any red. June.

Early Purple Guigne—One of the very earliest sweet cherries. Nearly black when fully ripe, tender, juicy, delicious, tree slender and spreading, productive and remarkably hardy. Middle of June.

Elton—Large, pointed pale yellow, nearly covered with red, light, half tender, juicy, rich and delicious, tree vigorous, spreading and irregular. End of June.

Gov. Wood—One of the best cherries, very large, light yellow marbled with red, juicy, rich, and delicious. Tree healthy and a great bearer. Hangs well on the tree. Vigorous. Last of June.

Knight's Early Black—Large, black, tender, juicy, rich and excellent, productive. Free. Middle to last of June.

Luelling (Black Republican)—A native of Oregon. Fruit very large, shining black, flesh very solid and firm, a good keeper and will bear transportation well. Tree a moderate grower and rather tender, an early and profuse bearer.

Lambert—Size very large, form roundish, heart shaped, cavity medium, regular, with gradual slope, stem long, slender, suture of medium depth, wide, extending from cavity to apex which is of a round russet dot in a broad depression, surface smooth, glossy, color dark purplish red, with numerous minute, indented russet dots, flesh dark purplish red with whitish veins, meaty and of firm texture, stone oval, semicling, small for so large a fruit, flavor sweet or very mild, sub-acid, aromatic, rich, quality very good.

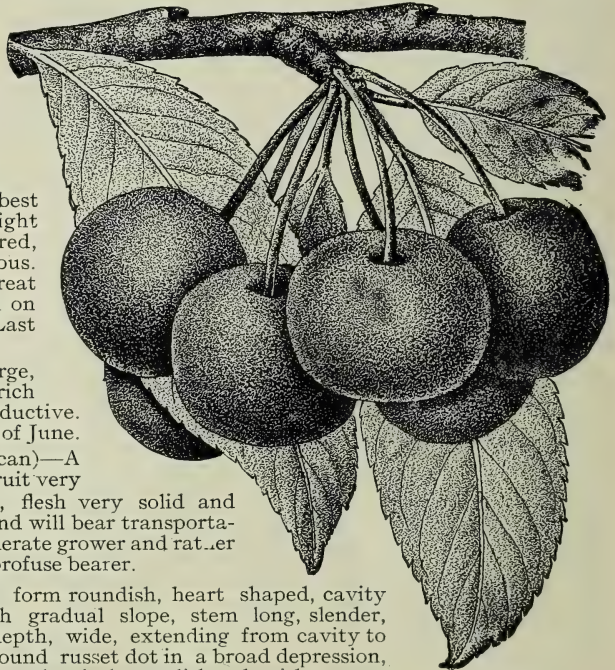
Large Red Prool—Large, skin dark red, black at maturity. Flesh firm and juicy. June and July.

Lincoln—Large, skin brown red. Flesh firm, sweet and juicy. July.

Major Francis (Ox-heart)—Fruit large, obtuse, heart shaped. Skin dark red, half-tender, with a pleasant juice, of second quality in point of flavor. Last of June.

Napoleon Bigarreau (Royal Ann)—Very large, pale yellow or red, very firm, juicy and sweet, very productive, one of the best. Vigorous. First of July.

Rockport—Large, heart shaped, skin bright red when ripe. Flesh firm, juicy and sweet. June.



MONTMORENCY

White Heart—Large, heart shaped, skin yellowish white. Flesh firm, and when ripe tender. June.

Yellow Spanish—Large, pale yellow, with red cheek, firm, juicy, and excellent, one of the best light colored cherries, productive. Free. Last of June.

DUKE AND MORELLOS.

Early Richmond (Kentish)—Medium size, dark red, melting, juicy, sprightly, acid flavor. This is one of the most valuable and popular cherries, is surpassed for cooking purposes by none and is exceedingly productive. Free. June.

Empress Eugenie—A French cherry of the Duke family, large, roundish, flattened, rich, dark red, flesh reddish, tender, rich, juicy, sub-acid, very good, stone small, tree rather dwarf in habit, shoots stout, very productive. First of July.

English Morello—Medium to large, blackish red, rich, acid, juicy and good, very productive. Moderate. August.

Late Duke—Large, light red, late and fine. Moderate. Last of July.

May Duke—Large, dark red, juicy and rich, an old, excellent variety, productive. Free. Middle of June.

Montmorency (Ordinare)—A large, red, acid cherry, larger than Early Richmond, and flesh red, fully ten days later. Very profitable. Early Richmond hangs in clusters and is more liable to rot. Free. Last of June.

Olivet—A new variety of French origin. Large, globular, very shining, deep red sort, flesh red, tender and rich, vigorous, very sweet, sub-acid. Free. Middle to last of June.

Ostheim—A Russian cherry of recent introduction, very hardy, color dark red, flesh very dark, juicy with a pleasant sub-acid flavor. Free. Middle of July.

Reine Hortense—Very large, fine, bright red, juicy, delicious and productive.

Wragg—Supposed to hail from North Germany, very hardy. The tree is a good grower and an immense bearer, fruit a dark liver color, juicy and rich. Quite late and a valuable cherry.

PEACHES.

The peach tree requires a well drained, moderately rich soil, warm sandy loam is probably the best. In order to preserve the continued healthy growth of the tree and the fine quality of the fruit, the peach should have the shoots and branches cut back to one-half the preceding season's growth every year, so as to preserve a round, vigorous head; this should be done the last of February, or as early in the spring as practicable. The land should not be seeded to grass, but kept in constant cultivation.

Alexander—Medium, greenish white, nearly covered with rich red, melting, juicy, sweet July.

Amsden—An early peach, of medium size, white, fine, flesh juicy and melting. Middle to last of July. Slightly cling.

Cox Golden Cling—Medium, skin green, covered with red. Flesh white, juicy and sweet.

Crawford's Early—This very beautiful and best of yellow peaches is highly esteemed for market purposes. Fruit very large, oblong, skin yellow, with a fine red cheek, flesh yellow, juicy, sweet and excellent. Wonderfully productive and hardy. Freestone. Last of August.

Crawford's Late—Fruit of the largest size, skin yellow, or greenish yellow, with dull red cheek, flesh yellow, productive. One of the finest late sorts. Freestone. Last of September.



THE ELBERTA

- Crosby**—This peach, which originated in Massachusetts, has been justly described as an ironclad and frost-proof peach. It, unquestionably, is one of the hardiest peaches of good quality yet introduced, and will carry the peach belt several degrees north. It has borne immense crops where all other kinds in the same orchard were killed. The fruit is full medium size, round, oblate. Color bright yellow, beautifully splashed and striped with crimson. The flesh is light yellow and red at the stone, firm, moderately juicy and of good quality. It ripens about with Old Mixon Free. Freestone.
- Charlotte**—An improved seedling from Early Crawford. Flesh yellow, melting and juicy, with rich and excellent flavor. Freestone. Ripens ten days after Crawford's Early.
- California Cling**—Very large, round, regular, orange, nearly covered with rich dark red, flesh deep yellow, flavor delicate, rich, vinous. Middle of August.
- Elberta**—A seedling of Chinese cling but entirely free. Large, yellow with red cheek, juicy and of high quality, flesh yellow and melting. A very valuable sort. Ripens after Early Crawford. Freestone.
- Foster**—Large, deep orange red, becoming very dark red on the sunny side, flesh yellow, very rich and juicy, with sub-acid flavor. Very handsome. Freestone. Last of August.
- Hale's Early**—Raised in Ohio, medium size, flesh white, first quality, ripens middle August.
- Lovell**—A California seedling, large, almost perfectly round, flesh yellow to the pit, firm and of excellent quality, a superb canning and drying peach and more in demand by the canners in recent years, and commanding a much higher price than any other variety of freestone peach. Worthy of extensive cultivation, ripens a few days after Muir.
- Lemon Cling**—Large, oblong, having a swollen point, similar to a lemon, skin yellow with red cheek. Flesh yellow, firm, juicy and sweet. August.
- Muir**—Large, skin yellow. Flesh firm and very sweet, good drying and canning peach, freestone.
- Old Mixon Cling**—Large, pale yellow with red cheek, juicy, rich and high flavored, one of the best clingstone peaches. Last of September.
- Old Mixon Free**—Large, pale yellow, with deep red cheek, tender, rich and good, one of the best. First to middle of September.
- Phillip's Cling**—Fine, large, yellow, flesh firm, clear, yellow to the pit which is very small. Preferred by canners to any other variety of cling, its firmness, fine texture of flesh and lateness, not ripening until September, when other clings are practically harvested, makes a demand for this variety far beyond the supply.
- Salway**—Fruit large, roundish, deep yellow, with rich marble brownish red cheek, flesh yellow, juicy, rich and sugary. A new English variety, a good keeper and promising highly as a late showy market sort. Freestone. First of October.
- Smock**—Large, light orange yellow with dull red cheek. Flesh white and juicy.
- Susquehanna**—Large, skin rich yellow with a beautiful red cheek. Flesh yellow, sweet, juicy with a rich flavor, freestone.
- Triumph**—Ripens with the Alexander, blooms late, sure and abundant bearer, strong, vigorous grower. Fruit good size, yellow, with red and crimson cheek.
- Tuscan Cling**—A very large, yellow cling, the earliest fine cling, flesh juicy, and of fine flavor and clear yellow to the stone. A good shipping and canning peach and very desirable on account of its earliness, ripening with the Early Crawford.
- Wheatland**—Very large, round; yellow shaded red, flesh yellow firm, melting, juicy, rich, sweet, tree a rapid grower and heavy bearer, fruit ripens between the Early and Late Crawford, one of the largest and finest flavored freestones and superior to either of these varieties. Excellent for shipping, canning or drying. First of August.
- Wonderful**—Large, skin yellow with a beautiful bright crimson blush. Flesh rich light golden yellow, very sweet, rich and luscious.
- Yellow Rareri**—Large, deep yellow dotted with red, melting and juicy, with a rich flavor. Freestone. Last of August.

NECTARINES.

The habit and growth of the trees resembles the peach. The fruit has the distinction of a smooth skin, not so large as the peach, and rarely as fine flavored as our best peaches. Thrives wherever peaches will grow.

Boston—Fruit large and handsome, skin bright yellow with very deep red cheek. Flesh yellow to the stone, sweet though not rich, with a pleasant and peculiar flavor. September.

Early Violet—Medium, skin yellowish green, with a purple cheek. Flesh melting, rich and highly flavored. July.

APRICOTS.

The apricot is one of the most beautiful and delicious of fruits. The tree succeeds best and the crop is more when planted on a northern exposure so as to escape injury from late spring frosts, as the buds and blossoms start too early in the spring, and are often injured from that cause.

Blenheim (Shipley)—An excellent variety and in great demand. The trees are early and regular bearers and have an abundance of foliage thoroughly protecting the fruit. Fruit above medium, oval, orange color, with deep yellow, juicy and rich flesh. June.

Hemskirke—Large, skin orange with a red cheek. Flesh bright orange, tender, rather juicy with rich and luscious flavor, stone small. July.

Moorpark—Large, skin orange in the shade, but deep orange red in the sun. Flesh quite firm, bright orange, parting free from the stone, quite juicy with a rich flavor. August.

Peach—Fruit quite large, skin yellow in the shade, but deep orange in the sun. Flesh of a fine saffron color, juicy, rich and of a high flavor, parting free from the stone.

Royal—Large, skin dull yellow with an orange cheek very faintly tinged with red. Flesh pale orange and juicy, with a rich, vinous flavor. July.

Russian—Medium, skin yellow with faint markings of red. Flesh yellow, firm and juicy.

PLUMS.

Most of the cultivated varieties of plums are European or descendants of European varieties. But in recent years certain extraordinary good varieties of native plums have been widely disseminated, and very recently some extremely valuable varieties have been received from Japan. Crosses from these will from time to time bring out new and much improved varieties, especially securing plums of the best quality of the European plums united with the hardiness, or desirable season, or good shipping qualities of the others.

The finer kinds of plums are beautiful dessert fruits, of rich and luscious flavor. For cooking and canning they are unsurpassed. For best flavor they should be allowed to remain on the tree until fully ripe, but for shipping to market, they must be gathered a very few days earlier, when they may be shipped long distances, arriving in good condition. Overbearing should not be allowed, but when the trees are over full, sometimes one-half should be removed, the remaining fruit thus having a chance to come to the finest perfection and bringing a much higher price than if all had remained on the tree.

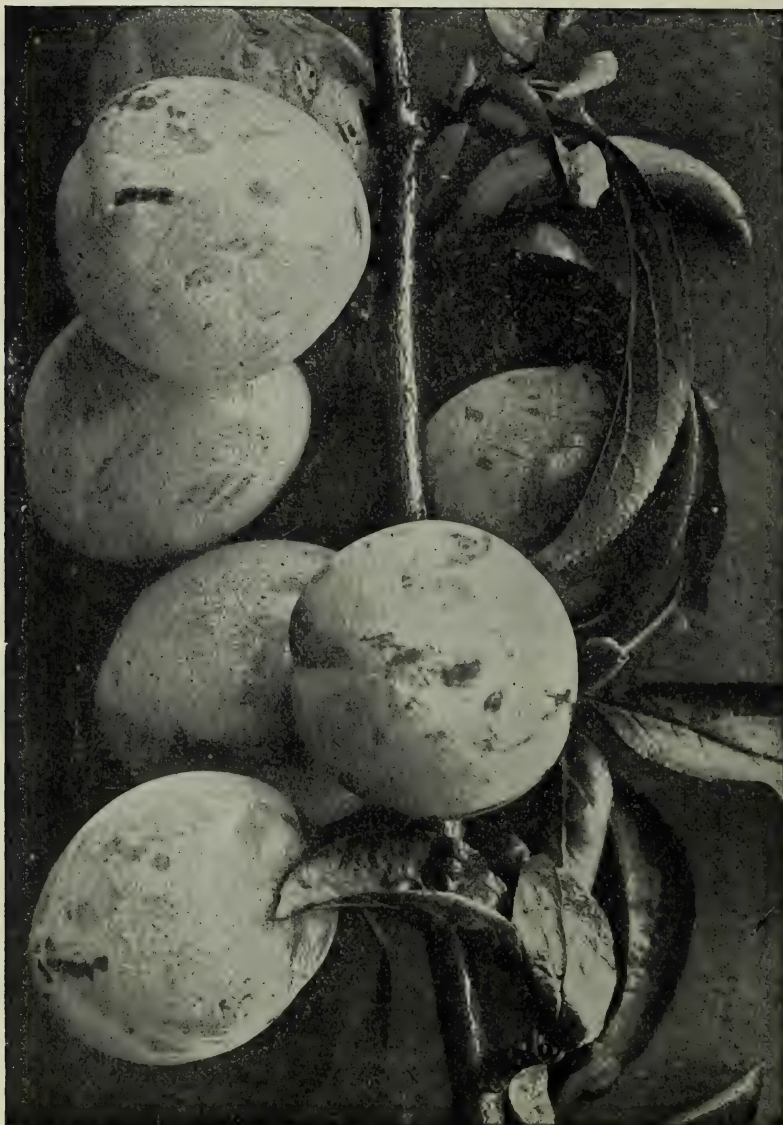
Some varieties, especially of the native plums, are hardy and will stand the climate of the extreme northeast. Such are noted in our list as hardy, extra, while in the list all are hardy and vigorous in all but the most severe climates.

Plums should be pruned sufficiently to prevent a straggling growth, and to keep the head from being too crowded. The plum does best in heavy loam, but it will do extremely well on a shaly or gravelly loam, especially if there be some clay in the soil. They should be thoroughly cultivated and not allowed to stand in grass.

Abundance (Botan)—One of the best Japan plums. The tree is a very rapid grower, healthy in limb and foliage, comes into bearing remarkably young, and yields abundantly. The fruit is full medium size, color a rich, bright cherry red, with a distinct bloom, and highly perfumed, flesh light yellow, very juicy and tender, and of excellent quality. Vigorous. Last of July.

- Apricot Plum** (*Prunus Simonii*)—In all respects a botanical curiosity. In color of bark, and in all except the net veinings and color of leaves, it resembles the peach. The fruit in appearance comes nearer a flattish smooth, brick red tomato than any of our stone fruit, yet in smell and flavor it approaches very near the nectarine. It is a native of Northern China, comes in bearing very young and adds a new type to fruit collections, a type without a representative among our fruit trees. While we place it with our plums, it should be classed by itself. Vigorous. August.
- Bartlett Plum**—One of the most striking of Burbank's introductions in the plum line and well named after the famous Bartlett pear, for it resembles it very closely, having an erect upright habit with glossy green leaves. Fruit oval, yellow, turning to deep crimson when fully ripe, flesh light salmon colored, firm and juicy with a flavor partaking of the banana and Bartlett pear. Ripens before Burbank.
- Bradshaw**—Fruit very large, dark violet red, flesh yellowish green, juicy and pleasant, very productive. One of the most profitable for market. Comes at a good season of fine appearance and brings a good price. Vigorous. Middle of August.
- Burbank**—A valuable Japanese plum, of deeper color and ripening later in the season than the Abundance. The fruit is large, nearly globular, clear cherry red with a thin lilac bloom, flesh a deep yellow, very sweet, with a peculiar and very agreeable flavor. The tree is a vigorous grower, with large and broad leaves, usually begins to bear year after transplanting. August.
- Blue Damson**—Medium, skin dark blue with light blue bloom. Flesh yellowish green, juicy, sweet, adheres to the stone. August.
- Columbia**—Large, skin brownish purple, dotted with numerous fawn colored specks and covered with much blue bloom. Flesh orange, not very juicy, but when at full maturity, very rich, sugary and excellent. August.
- Coe's Golden Drop**—Large and handsome, light yellow, firm, rich, sweet, one of the best late plums. One of the best for family use.
- DeSoto**—Very hardy, extremely productive, medium size, bright red, good quality. September.
- Drap d'Orr**—Below medium, skin rich, bright yellow, flesh yellow, sugary and rich, separates easily from stone. August.
- Early Golden Drop**—Small, skin bright yellow. Flavor sugary and rich. August.
- General Hand**—Very large, oval, golden yellow, juicy, sweet and good. Vigorous. A poor bearer. First of September.
- Green Gage**—Small, well liked where grown, tree a slow grower, about middle of August.
- Imperial Gage**—Fruit large, oval, skin pale green, flesh juicy, sweet, rich and excellent. Vigorous. Middle of August.
- Jefferson**—Large, skin golden yellow with a beautiful red cheek. Flesh deep orange, very rich, juicy, luscious and high flavored.
- Kelsey's Japan**—Large, skin a rich yellow, nearly overspread with bright red. Flesh firm, rich and of excellent quality. August and September.
- Lombard** (Becker's Scarlet)—Medium, roundish oval, violet red, juicy, pleasant and good, adheres to the stone, productive. A valuable market variety, one of the most hardy and popular. Nearly always produces a crop. Not liable to rot. Vigorous. Middle of August.
- Moore's Arctic**—Fruit grows in large clusters, large, dark purple, flavor very fine, both for preserving and dessert. A long keeper. Vigorous. September.
- Niagara**—Very large, reddish purple, entirely covered with gray bloom, flesh deep greenish yellow. By some said to be identical with Bradshaw. Vigorous. Middle of August.
- Peach Plum**—Large, shaped more like a peach than a plum, roundish much flattened at both ends, skin light brownish red, sprinkled with obscure dark specks. Flesh pale yellow a little coarse grained but juicy and of a pleasant sprightly flavor when fully ripe. July.
- Ogon**—Large, nearly round, bright yellow, with faint bloom, flesh firm, sweet, rich and dry. Tree vigorous and hardy. First of August.
- Red Egg** (Red Magnum Bonum)—Large, red, firm flesh, sub-acid. First of September.
- Reine Claude de Bavay**—Large, nearly round, pale yellow, marked with red, juicy, melting and excellent, good bearer. Not liable to rot. One of the most profitable for market. Vigorous. First of September.

Satsuma—A fine large, Japanese plum. The flesh is solid, of a purplish crimson color from pit to skin, juicy, and of fine quality. Pit exceedingly small, very little larger than a cherry stone. Vigorous. September.



THE BURBANK

Shipper's Pride—Fruit large, color dark purple, handsome and showy, flesh firm, of excellent quality, very productive and a valuable market variety. Free. September.

Shropshire Damson—A plum of fine quality, as free from the attacks of the curculio as the Common Damson, and of same color. The flesh is amber colored, juicy and sprightly. Very productive, and a valuable market variety. Not liable to rot. Free. September.

Smith's Orleans—A large and good kind. Oval, reddish purple, flesh firm, juicy and good, fine flavor. August and September.

Victoria—Large, skin bright yellow, marbled and spotted with light lilac. Flesh golden yellow, coarse, not very juicy and sugary. September.

Washington—Very large, clear yellow, marked with red, flesh firm, very juicy and excellent, very popular, productive. Free. Last of August.

Weaver—Purplish red, with blue bloom, very prolific, a constant and regular bearer and of good quality. The tree is very hardy, not being injured in the severest winters and will thrive even to the northern limits of the United States. American. Vigorous. August.



THE WICKSON

Wild Goose—Fruit medium, color a beautiful bright red, flesh juicy and sweet. American. Vigorous. First of August.

Wickson (A new Japanese plum, a cross between Kelsey and Burbank)—The tree grows in vase form, sturdy and upright, yet as gracefully branching as could be desired, and is productive almost to a fault. The fruit is evenly distributed over the tree and from the time it is half grown until a few days before ripening is of a pearly white color, but all at once soft pink shadings creep over it, and in a few days it has changed to a glowing carmine with a heavy white bloom, the stone is small and the flesh is of fine texture, firm, sugary and delicious, and will keep two weeks or more after ripening, or can be picked when hard and white and will ripen

almost as well as if left on the tree. Ripens about the first of September.

Yellow Egg (Yellow Magnum Bonum)—Very large, egg-shaped, excellent for cooking, good and productive. Vigorous. Last of August.

PRUNES.

We follow the distinction made between plums and prunes, as it is common in the horticulture literature of the Pacific Coast. By the term "prune" is signified a plum that dries successfully without the removal of the pit and produces a sweet, dried fruit. To such proportions has the prune industry grown in the past dozen years, that it may now be classed as one of the most important productions of the Pacific Coast. The exportations annually to the Eastern markets reaching hundreds of million pounds of the finest prunes in the world.

French Prune (Petite Prune d'Agen)—Medium to small, skin reddish purple with a blue bloom. Flesh fine, juicy, sugary, used very extensively for drying in California. September.

Fellenberg (Italian Prune)—Medium, skin dark blue with a bloom. Flesh dark yellow, juicy, sweet and good. October.

Grosse Prune d'Agen—Large, skin violet, very prolific often the growing double, good flavor. September.

- German Prune**—A large, long, oval variety, much esteemed for drying, color dark, purple, of very agreeable flavor. Vigorous. September.
- Giant Prune**—One of the Burbank's new creations, of largest size, color deep, dark purple, flesh yellow, and of remarkable sweetness, excellent shipper. The tree is a strong grower, producing fruit of uniform size, productive.
- Golden Prune**—Large, skin yellow. Flesh yellow, juicy, sugary. August.
- Imperial (Epineuse)**—Large size, light or reddish purple color. Thin skin, sweet and high flavored. Tree stout, stocky, rapid grower.
- Pacific**—Originated at Mt. Tabor, Oregon. Tree hardy, borne abundantly since three years old. Fruit freestone, very large and handsome. Flavor the finest, rich sugary and luscious. A good shipper. The best of drying prunes.
- Robe de Sargent**—Medium to large, skin deep purple, appearing almost black. Flesh greenish yellow, sweet and rich, adhering to the stone. August.
- Silver Prune**—Large, an Oregon seedling from Coe's Golden Drop which it much resembles, but is much more productive and makes excellent dried fruit.
- Sugar**—An extremely early prune, ripens August first, cures superbly rich, with a yellow flesh, tender and sweet in sugar juice, skin very tender, at first of a light purple, tinted with green, changing at maturity to dark purple, covered with a thick white bloom.
- Splendor**—Large, very long in shape, clear even purple, turns quite black in curing. Cooked, has a slight acid flavor.
- Tennant**—Originated in Whatcom Co., Washington, where it has been tested for twenty years, and has never failed to produce a good crop of fruit. Large dark purple with a blue bloom. Flavor of the highest quality, rich, sugary and delicious. Tree hardy and very productive. Bears transportation well, and is considered by all who have seen it to be the best drying prune in cultivation.
- Tragedy**—Medium, skin dark purple. Flesh yellowish green, very rich and sweet, parts readily from the stone. June.

QUINCES.

The quince is a well-known, hardy, deciduous tree, of small size, crooked branches and spreading bush head. The fruit is of a fine golden yellow, and is much valued for preserving and jellies.

- Angers**—Large, tree strong and abundant growers. Flesh harsh with a very strong acid. October.
- Champion**—Large, skin yellow, very showy and handsome. Flesh tender for a quince. fine flavor. October.
- Orange (Apple)**—Large, skin bright yellow, golden cooks well, and of an excellent flavor.

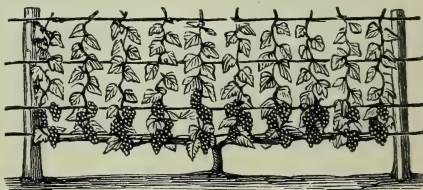
GRAPES.

The vine comes quickly into bearing, yielding usually the second year after planting; requires but little space, and when properly trained, is an ornament to the yard, garden, or vineyard.

The soil for the grape should be dry, when not naturally so should be thoroughly drained. It should be dry and deeply worked and well manured, always bearing in mind that it is an essential point to secure a warm sunny exposure.

The best grape vine trellis is probably the wire trellis, with four wires eighteen inches apart. Pruning should be done so that each year two or three of last season's branches shall alone be left, at the spurs of which the present year's growth may start.

During the season that the shoots have reached the upper part of the trellis, they



may be pinched to prevent further growth. The following spring the canes should be cut back to two buds. Allow but one bud to throw out a shoot, and treat as in previous year. This system should be followed each year.



NUMBER OF VINES PER ACRE.

6 x 6.....	1210	8 x 8.....	680	9 x 8.....	605
6 x 8.....	907	8 x 10.....	545	9 x 9.....	538
6 x 10.....	726	9 x 6.....	807	9 x 10.....	484
6 x 12.....	605	8 x 12.....	435	9 x 12.....	403
8 x 7.....	777	9 x 7.....	691	10 x 10.....	435
				10 x 12.....	363

AMERICAN VARIETIES.

Agawam (Roger's No. 22)—Large, round, and early, of great vigor, of growth, rich, peculiar aromatic flavor. Considered by Mr. Rogers as the best of his strictly red Hybrids. September.

Brighton—A cross between the Concord and Diana Hamburg. It gives the best of satisfaction. Bunches large, berries of medium size, dark red, flesh sweet, tender and of highest quality. Ripens one week earlier than the Delaware. First of September.

Campbell's Early—Clusters large and handsome. Berries larger, nearly round, black with light purple bloom, flesh rather firm, but tender, the seeds are very few and easily separated from the pulp, quality rich, sweet, slightly vinous, a strong and vigorous grower, with healthy foliage, it ripens very early, the berries do not drop easily from the clusters and the fruit keeps a long time in perfection. Promises to be of great value.

Catawba—Bunches large and loose, berries large of a coppery red color, becoming purplish when well ripened, later than Isabella, requires the most favorable soils and situations, good culture and warm seasons to mature perfectly. Last of September.

Concord—A popular variety where the choice kinds fail to ripen, universally healthy, vigorous and productive, flesh somewhat buttery, moderately juicy and sweet. Bunch large, nearly black with bloom, early. September.

Delaware—Still holds its own as one of the finest grapes. Bunches small, compact, shouldered, berries rather small, round, skin thin, light red, flesh very juicy, without any hard pulp, with an exceedingly sweet, spicy and delicious flavor. Vines moderately vigorous and productive. September.

Hartford Prolific—Bunches rather large, berries large, globular, color almost black, covered with a beautiful bloom, flesh sweet and juicy, ripens four or five days before the Concord, valuable for its hardiness, abundant growing and early maturity. August.

Isabella—Bunches large, shouldered, berries round, oval, rather large, dark purple, flesh tender, juicy, sweet, with a fine aroma. Season of ripening late.

Moore's Early—A seedling of Concord, combining the vigor, health and productiveness of Concord, and ten days earlier than the Hartford. In quality, hardly to be distinguished from Concord. Bunch large, berries very large, black. August.

Moore's Diamond—White, bunch large compact, shouldered, berries large, round, skin thick, firm, flesh tender, juicy, with but little pulp. Vine a good grower with thick, healthy foliage, said to be hardy and productive. September.

Niagara—Bunch medium to large, compact, occasionally shouldered, berry large, roundish, uniform, of a pale greenish color, flesh slightly pulpy, tender, sweet, vine remarkably vigorous, healthy and productive. September.



WORDEN

Pocklington—Is a seedling from Concord, fruit a light golden yellow, clear, juicy and sweet to the center, with little or no pulp, bunches very large, sometimes shouldered, berries round, very large and thickly set. First of September.

Salem (No. 22)—Bunch large and compact, berry large, of a light chestnut or Catawba color, thick skinned, perfectly free from hard pulp, very sweet and sprightly, with a most exquisite aromatic flavor; as early as the Delaware, keeps well. First of September.

Sweet Water—Bunches large, berries round, yellowish green, skin thin, flesh crisp, watery, sweet, moderately rich.

Worden—Bunches large, handsome, double shouldered, berries large, sweet, lively, with very little of the foxy or native flavor. Being ten days earlier than Concord, it ripens well in cold localities, vine very thrifty and vigorous, perfectly hardy and a good bearer. It is coming rapidly into repute as one of the leading sorts for general cultivation, ranking in this respect with Concord, to which it is decidedly superior in quality, black. Middle of September.

EUROPEAN VARIETIES.

Black Ferrera—Bunches large shouldered, loosely set. Berries large oval, skin thin, black with violet bloom, flesh sweet, crackles. A most delicious table grape and valuable for shipping.

Black Hamburg—Bunches very large, berries large round, skin thick, coal black when fully ripe, flesh sweet and juicy. One of the best table grapes.

Emperor—Vine a strong grower and heavy bearer, bunches very large, long, and loose-shouldered, berry large, oblong, deep rose colored, covered with light bloom, firm, thick skin. One of the most profitable late varieties to plant for market, its firmness, good keeping qualities and rich color cause it to be in great demand in the eastern markets every year. Withstands rain better than any other variety. October.

Malaga—Vine a strong grower, and immensely productive, thriving in almost any soil, bunches very large, often weighing ten pounds, compact shouldered, berry very large, oval, yellowish green, skin thick fleshy. One of the best shipping grapes commanding a good price in the eastern markets every season. Makes a second quality raisin. August.

Flame Tokay—Bunches very large and moderately compact, berries large, skin thick, pale red, covered with bloom, flesh firm, sweet, an old standard variety; always commands a good price in the eastern markets, and as a table grape more extensively planted than any other variety. September 15.

Muscat of Alexander (Gordo Blanco)—Bunches long and smooth shouldered, berry oval, sometimes round, yellowish green, skin thick, flesh with a decided Muscat flavor. This is the variety so extensively planted for raisins. The distinctive feature between the Alexandria and Gordo Blanco is supposed to be in the shape of the berries the former being oblong and the latter round. In this locality the two varieties have been found to be so nearly identical, round and oblong berries being found on the same vine, that they are classed as Muscats and no distinction is made by even the most experienced raisin vineyardists. Late August.

Rose of Peru—Vine a strong grower, bunches very large, shouldered, loose, fruit round, large and firm and crackling flesh, a very handsome grape of fair quality, and highly esteemed as a market variety. September.

Thompson's Seedless—Identical with the Seedless Sultanas of Asia Minor. Vine an enormous bearer and very rapid grower, bunches very large, berries greenish yellow, firm, oval, seedless, skin thin, much larger than the Sultana. This variety is attracting a great deal of attention in this valley, and it is preferred to the Sultana, having many qualities superior to it. The raisins are of a very superior quality, and are in good demand, a very early shipping grape, ripening in August. As a sherry grape much can be said in its favor.

Black Malvoise—Vine a strong grower, berries large, oblong, reddish-black, with faint bloom, flesh juicy, flavor neutral, an immense bearer, an excellent table, as well as wine grape.

SMALL FRUITS.

The small fruits, such as Raspberries, Gooseberries, Currants, etc., ripening from the first of June till fall, are everywhere capable of successful cultivation, and yield large returns at comparatively small expense. They should have a place in every garden. Thanks to evaporators and self-sealing cans, they may be had throughout the year almost as fresh as when gathered.

GOOSEBERRIES.

This fruit requires the same cultivation as the currant. The surest method to prevent mildew is to plant thickly in the rows, and mulch deeply six or more inches with



straw, tan bark, coal ashes, etc. Plantations thus treated have borne large crops for twenty years. The mulch retains moisture in the dryest weather, the few weeds that push up are pulled, and the fruit is large and more evenly ripened. In mulching, be sure the ground is underdrained or it is worse than useless. Good cultivation is better than half mulching. Put it on thick. In a dry season the extra amount of fruit will doubly pay for the material used, not to speak of the saving of labor and cleanliness of the fruit. The price is remunerative, and the demand is yearly increasing. The American varieties are not subject to mildew.

Downing—Fruit larger than Houghton, roundish, light green, with distinct veins, skin smooth, flesh rather soft, juicy and very good. Vigorous and productive.

Crown Bob—An English variety, large, roundish oval, red, hairy, of first quality.

Houghton—A medium sized American variety, which bears abundant and regular crops and never mildews, fruit smooth, red, tender and very good, valuable.

Industry—An English variety, quite as free from mildew as our American sorts, very fine in quality, large size, handsome, showy fruit, wonderfully productive.

Josselyn (Red Jacket)—An American seedling of large size, smooth, prolific and hardy, of best quality. Has been well tested over a wide extent of territory by the side of all the leading varieties, and so far the freest from mildew, both in leaf and fruit, of them all. A wonderful cropper, with bright, clean, healthy foliage.

Oregon Champion—Large, skin light green and hairy. Flesh very sweet, juicy, excellent flavor, very prolific bearer and will not mildew.

Pearl—An exceedingly prolific variety that has been well tested and ranks No. 1 in healthfulness, vigor of growth, freedom from mildew and productiveness. Same color as Downing, seems to possess all the good points of that variety with a little larger fruit and rather more prolific.

Smith's Improved—From Vermont. Large, oval, light green with bloom, flesh moderately thin, sweet and good, vigorous grower.

CURRENTS.

This fruit comes partly with the Raspberry, but follows it several weeks. Indeed, none of the small fruits will remain so long upon the bushes without injury as the currant.

Set four feet apart in rich ground, cultivate well or mulch heavily, prune out old wood, so that each remaining shoot will have room to grow. If the currant worm appears dust with hellebore every three weeks. Manure freely.

Black Naples—Very large, black, rich tender and excellent for jellies and wine, very productive.

Cherry—Very large, deep red, rather acid, bunches short. Plants erect, stout, vigorous and very productive.

Fay's Prolific—Color deep red, rather acid, great bearer, stems longer than Cherry, and berries hold their size to the end of the stem better. Quality first-class, not quite so acid as Cherry, the best of all the red currants.

Lee's Prolific—A new black English production of great value. The fruit is large and of superior quality, the bush is a vigorous grower and enormously productive.

North Star—A new variety. The average length of the bunches is four inches, the berries form a single bunch, thirty in number, placed side by side, touching, covered a line twelve inches long. The fruit is very sweet and rich in quality, firm, a good market berry, desirable as a dessert fruit in the natural state and unequalled in jelly. The length and abundance of the clusters make it possible to pick 25 per cent. more fruit in the same length of time from this than from other sorts.

Pomona—A new red currant of good size, very productive, sweet, of excellent quality.



Red Dutch—An old, well known sort, berry of medium size and good quality, bunch long, plant an upright grower and very prolific.

Versailles—Very large, red, bunch long, of great beauty, and excellent quality, one of the finest and best, and should be in every collection. Very productive.

Victoria—Large, bright red, with very long bunches, late, a good bearer.

White Dutch—Well-known, of medium size and excellent quality.

White Grape—Very large, yellowish white, sweet, or mild acid, excellent quality and valuable for the table. The finest of the white sort. Very distinct from White Dutch, having a low, spreading habit and dark green foliage. Very productive.

RASPBERRIES.

The fruit comes just after strawberries, and when properly cultivated is quite profitable.

Plant on strong soil, manure freely, cultivate well or mulch heavily. For field rows seven feet apart four feet in row. Pinch off canes when three feet high, and prune the laterals the following spring, within twelve or eighteen inches of the cane. Cut out old wood each year immediately after the bearing season is over. Cover tender varieties in winter by bending down and throwing earth or coarse litter over them. In the spring they should be raised and tied to a stake.

RED RASPBERRIES.

Columbian—A new red raspberry originated in Oneida County, New York. Said to be a seedling of the Cuthbert, grown near the Gregg and believed to be a cross between the two. One of the most vigorous growers of the red raspberry family. Fruit very large, often an inch in diameter, shape conical, color dark red, bordering on purple. Adheres firmly to the stem and will dry on the bush if not picked. Wonderfully prolific and perfectly hardy.

Cuthbert—A variety of the greatest excellence. One of the few kind that may be pronounced perfectly hardy. The canes are tall and vigorous, and enormously productive. Berries very large, conical, rich, crimson, very handsome, and so firm that they can be shipped hundreds of miles by rail without injury. Flavor very luscious, best; commences to ripen moderately early, and holds on until most others are gone.

Japanese Raspberry (Wineberry)—Ornamental both in fruit and plant. Canes covered with purplish-red hairs, leaves dark green, silvery gray beneath. Fruit in large clusters and each berry at first tightly enveloped by the large clays, forming a sort of burr, which is covered with purplish-red hairs. These gradually open and turn back, exposing beautiful wine-colored fruit of medium size, brisk sub-acid, retaining flavor when cooked, highly esteemed for canning, preserves, jellies, etc.

Loudon—Said to be a seedling of the Turner crossed with Cuthbert. Large, broadly conical, beautiful red. Ripens about the time of the Cuthbert, continuing later, and in quality fully as good as that variety.

Marlboro—A strong grower, with heavy canes and laterals, hardy, fruit very large, bright crimson, holding its color well. An exceedingly early variety, and a vigorous, heavy bearer, of excellent quality. A truly reliable acquisition.

Red Antwerp—Large, dark red, with large grains and covered with a thick bloom. Flesh juicy, with a brisk flavor.



COLUMBIAN

Shaffer's Colossal—Berries are large, of a dull purplish, unattractive color, rather soft, but luscious, and of a rich, sprightly flavor. Whilst its color and lack of firmness render it unfit for market purposes, it is unrivalled for family use, and is one of the best for canning. Late.

Turner—Medium, berry red, tender, juicy, sweet, very hardy.

YELLOW RASPBERRIES.

Golden Queen—A seedling from the Cuthbert, equaling that variety in vigor of bush and productiveness. Fruit large, color a pure yellow, quality best. Ripens with Cuthbert. A decided acquisition.

Yellow Antwerp—Large, berry light yellow, flesh pale yellow, sweet and of a good flavor.

BLACK CAPS.

Cumberland—A new Black Cap, of very large size, good quality, hardy and productive, mid-season.

Gregg—One of the most valuable varieties of the black cap family, fruit larger than the Mammoth Cluster, but not quite so good in quality, ripens some days later, hardy, a vigorous grower and great yielder.

Mammoth Cluster (McCormick)—A large and very productive variety of black caps. Good quality, ripens just after Souhegan and before the Gregg.

Ohio—Berry not quite as large as Gregg, but finer quality and the plants more hardy and will bear more successive crops.

Souhegan—Large, black, without bloom and of medium quality. Very hardy and a great bearer, a little earlier than Mammoth Cluster.

BLACKBERRIES.

Plant on good land, moderately manured. Rows seven feet apart, three feet in the rows in the field, prune as with Raspberries. Form a hedge or tie to wire. Cultivate shallow.

Burbank's Phenomenal—This new berry is a cross between "Improved California Dewberry" and the "Cuthbert Raspberry." Takes its color and flavor from the latter and size and shape from the former. Mr. Burbank describes it as "larger than the largest berry ever before known." Bright crimson raspberry color, productive as could be desired, and most delicious of all berries for pies, canning, jellies and jam. The berries grow in clusters. Easily grown, stands shipping well, and warranted hardy everywhere. Culture same as the Logan berries. It has made for itself by its just merits, hosts of new friends within the past year. To see it in its perfection is to desire it.

Eldorado—A valuable new variety, fruit medium size jet black, melting, sweet, and rich, plant hardy and very productive.

Early Harvest—A new variety of great promise, being exceedingly early in time of ripening and always reliable. The canes are strong and upright in growth, branching stout and vigorously. Hardier, than Kittatinny or Lawton, an enormous bearer. Berries sweet and of the highest quality, though not as large as some varieties.

Erie—This is a hardy blackberry that originated near Lake Erie. The bush is healthy and very productive, as well as hardy, fruit large, round, jet black, and good quality. Ripens very early and is a decided acquisition.

Kittatinny—Commences to ripen after the Wilson's Early, and continues longer in bearing, is ripe as soon as black, and much earlier, sweeter and better in all respects than the Lawton, which it resembles in plant and fruit.

Lawton—Fruit very large and black, and of excellent quality, an abundant bearer.

Logan Berry—Judge J. H. Logan, of Santa Cruz, is the originator of this wonderful fruit. It was raised from the seeds of the Aughinbaugh Blackberry and Red Antwerp Raspberry. The vine grows entirely unlike the blackberry or raspberry, it trails upon the ground like a dewberry. The canes are very large, without the thorns of the black berry, but have very fine spines like those found on the raspberry, leaves resemble those of the raspberry more than of the blackberry, are of a deep green color, coarse and thick. An exceedingly strong grower, and an enormous bearer. The fruit is as large as the largest sized blackberry, of the same shape and form, a dark red color when fully ripe, and combines the flavor of both the raspberry and the blackberry, having a mild and very pleasant vinous flavor not found in any other fruit. Raw, it is excellent for the table, as also stewed, and for jelly or jam it is without an equal. Fruit ripens early the bulk being gone before the blackberries or raspberries become plentiful. Is firm and a fine shipper.

Mammoth (New)—This wonderful new blackberry, which was introduced as a novelty several years ago, has proved to be a great addition to the list of blackberries. This new blackberry is claimed to be a cross between the wild blackberry and Crandall's Early. Grows entirely unlike any other blackberry plant known. It is a rampant grower, trailing on the ground, and under favorable conditions will grow twenty feet in a season. The canes are large, of deep red color when exposed to the sun, the foliage is large, thick, of a deep green color. It is enormously productive and exceedingly early, ripening three weeks before other cultivated kinds thus bringing fancy prices. Fruit is enormous, specimens measuring two and one-half inches long, seeds small, soft and abundant, cores small, soft. In size and flavor it is said by those who have tested it to surpass all other varieties of blackberries. We offer it to the public, feeling that it is a novelty of real merit.

Himalaya Giant—A late blackberry coming after the other berries are gone, ripening over a period of several weeks, making it especially desirable for family use. In Northern California they are seldom injured by frost, as they blossom after all



RATHBUN

frosts are over. Like the Logan berry, it must be grown on a trellis—the vines under favorable conditions growing 15 to 20 feet. The berries grow in bunches, are of excellent flavor and the yield surpasses any berry ever produced.

Oregon Evergreen—A native sort, superior to almost every berry in sweetness and flavor. The fruit is of medium size and is a very prolific bearer.

Rathbun—Fruit very large, with small seeds, no hard core. Sweet, luscious, high flavor, color jet black, firm, berries will measure an inch and a half long. Plants strong, erect. Roots at the tips like the blackcap, hardy and prolific. Forty-five berries filled a quart strawberry box.

Snyder—Extremely hardy, enormously productive, medium size, no hard, sour core, half as many thorns as Lawton or Kittatinny, and they are nearly straight and short, exceedingly productive.

Wilson, Jr.—A week earlier than Old Wilson, from which it is a seedling. Of largest size, and enormously productive, promises to be a very valuable sort. In severe climates should have winter protection.

DEWBERRIES.

Lucretia—The plants are perfectly hardy and healthy, and remarkably productive. The flowers are very large and showy. The fruit, which ripens with the Mammoth Cluster Raspberry, is very large, soft, sweet and luscious throughout, without any hard center or core. As the Dewberry roots only from the tips, and does not sprout like the blackberry, this will be much more desirable for garden culture, and the trailing of plants will render winter protection easily accomplished in cold climates, where that precaution may be necessary. The Lucretia has proven to be the best variety of Dewberries, and is recognized as a very valuable acquisition to the list of small fruit, there are, however, many other varieties most of which should be avoided, many being entirely worthless.

STRAWBERRIES.

Strawberries may be successfully grown on any soil adapted for garden purposes, or where good crops of grain or potatoes can be raised. The ground should be well prepared, thoroughly enriched, and be kept mellow and free from weeds.

Clark's Seedling (Hood River)—This new berry originated at Hood River, Oregon, where it is planted to the exclusion of all others for long distance shipments. It is larger than the Wilson, very firm. Color a beautiful dark red, and in quality is unsurpassed.

Jessie—Large berries, beautiful and of good quality, requires rich soil and good culture.

Magoon—Has proved to be a leader in hardiness in addition to all of its other good qualities. Of over 100 varieties the Magoon alone has come through the trying weather of last winter without injury. The Magoon Strawberry always brings top prices in the Portland market, and is a remarkable yielder.

Oregon Everbearing—Berry medium, is a very prolific bearer, very pleasant flavor ripens with the earliest and continues bearing until November.

Sharpless—Large, irregular, very good quality, with fine flavor, a prolific bearer.

Wilson's Albany—Berry of a medium size, very productive, bright red. Flesh of excellent quality with a rich, sub-acid flavor.

ASPARAGUS.

To make a good asparagus bed, the plants may be set in the fall or early spring. Prepare a plat of fine loamy soil, to which has been added a liberal dressing of good manure. Select two-year, or strong one-year plants, and for a garden, set in rows 18 to 20 inches apart, with plants 10 to 12 inches in rows.

Make a small mound of the soil, over which the roots should be evenly spread, so that the crowns, when covered, shall be three inches below the surface of the ground. If planted in the fall, the whole bed should be covered before winter sets in, with two or three inches of coarse stable manure, which may be lightly forked in between the rows as soon as the ground is softened in the spring.

Columbian Mammoth White—Produces shoots which are white and remain so as long as fit for use. In addition to the marvelous advantage of its white color, the Columbian Mammoth White Asparagus is even more robust and vigorous in habit, and throws larger shoots and fully as many of them, as the Conover's Colossal. Market gardeners, growers for canners and amateurs, should give this great acquisition a thorough trial.

Conover's Colossal—Very large size and of excellent quality, has superceded the old varieties.

Giant—This is an old and well known variety, tender and very rich.

Palmetto—A very early variety, even, regular size, of excellent quality.

Queen—Strong, vigorous grower, producing extra large stalks of finest quality, of a decided pink color. For canning or cooking in any way its quality is unsurpassed.

RHUBARB, OR PIE PLANT.

Deep, rich, moist soil is best, but it is such a strong, vigorous growing plant, it will thrive almost anywhere. Plant in rows four feet apart, and the plants three feet apart. Set the roots so that the crowns are about an inch below the surface. Rhubarb is a gross feeder, the more manure it is given, the larger and finer the yield.

Myatt's Linnaeus—Early, very large, tender and delicately flavored, requires less sugar than other sorts.

Victoria—This variety, if planted in a rich soil and properly cultivated, will produce tender stalks three feet long, and from one to two inches in diameter.

Wine Plant—The large size, fine texture and superior quality of this new variety over the old cultivated "Pie Plant" cannot be conceived by those who have never grown it. We have grown stalks frequently, with good cultivation, as thick as a man's wrist, and from three to four feet in length. In addition to its superior quality, for culinary purposes both when used fresh and for canning, it can be pressed and the juice made into a healthful wine, which for medicinal purposes or as a pleasant beverage, is considered superior to the best sherry wines.

NUTS.

Almonds.

DRAKE'S SEEDLING—Originated with Mr. Drake, of Suisum, California, of the Languedoc class, bears abundantly and regularly where the Languedoc is a total failure.

HARD SHELL—A fine, hard variety, with a large plump kernel.

I. X. L.—Large, generally single kernels, hulls easily, soft shell, tree a strong, upright grower.

NONPAREIL—Large, full kernel, thin shell, tree of a weeping habit, and a strong grower.

NE PLUS ULTRA—Similar to above, but of a different habit of growth.

SOFT SHELL—Not as hardy as the Hard Shell, kernels sweet and rich.

Chestnut.

AMERICAN SWEET—A valuable native tree useful and ornamental, timber is very durable, and possesses a fine grain of oil finish. Nuts sweet, of delicate flavor, and are a valuable article of commerce.

JAPAN—Very distinct from all other chestnuts, dwarf grower, productive, usually producing nuts when two or three years old. Nuts of immense size, far surpassing all other kinds, of fair quality when outside skin is removed.

SPANISH—A handsome round headed tree, producing abundantly very large nuts that find a ready market at good prices. Twenty-five dollars have been realized at one fruiting from the nuts of a single tree. Not as sweet as the American.

Filbert.

ENGLISH—Of easiest culture, growing six to eight feet high, entirely hardy, and one of the most profitable and satisfactory nuts to grow, succeeding on almost all soils, bearing early and abundantly, nuts nearly round, rich and of excellent flavor.

KENTISH COB—Not very large, oblong, and somewhat compressed, shell pretty thick, of a brown color, kernel full and rich, a great bearer. The best of all the nuts.

RED HAZEL—Medium size, shell rather thick, kernel crimson skin, with a peculiar excellent flavor.

Hickory.

SHELL BARK—To our taste no other nut that grows, either foreign or native, is superior to this in quality, it possesses a peculiar, rich, nutty flavor excelled by none. The tree is of sturdy, lofty growth. The wood, on account of its great strength and elasticity, is highly prized for making agricultural implements, and is unsurpassed for fuel.



Pecan—Not hardy in the north, one of the best and most profitable where it succeeds. Makes a very large, tall tree, producing its thin-shelled, delicious nuts in profusion.

Walnut.

BLACK—A native tree of large size and majestic form, beautiful foliage. The most valuable of all trees for its timber, which brings the highest price in the market, it enters largely into the manufacture of fine furniture and cabinet ware. Tree a rapid grower, producing a large round nut of excellent quality.

- CALIFORNIA BLACK WALNUT**—This species of Walnut is indigenous to California. The fruit is spherical, the nut hard but smooth, and not furrowed like the Eastern Black Walnut, the kernel is rich and oily. This walnut is of rapid growth, spreading out more than the Eastern kind, but going to bearing sooner.
- FORD'S IMPROVED SOFTSHELL**—Grown from seed of the Santa Barbara Soft Shell from selections made in 1880 by George W. Ford of Santa Ana, California. The trees are abundant croppers, the nuts are more uniform in size and form, brighter and smoother than the parent, and much superior in thinness of shell and quality of kernel.
- FRANQUETTE**—The intrinsic value of this great French variety, originated by a man named Franquet one hundred and thirty years ago in the southeast of France is just beginning to dawn on the nut growing people of the Pacific Coast. It is quite large, of an elongated oval and very attractive form, kernel full, sweet and of a rich nutty flavor, covered by a pellicle which is almost white. The only orchard of any size of this variety is located at Santa Rosa. On April 12, 1905, when other varieties were well leafed out, the buds had just commenced to swell on the trees in this orchard. The nuts command the very highest market price.
- JAPAN SIEBOLDI**—Perfectly hardy here, rapid grower, handsome form, immense leaves, bears young and abundantly, one of the finest ornamental trees. Nuts produced in clusters, resembles Butternut in shape and quality, smaller with smooth and thinner shell. Worthy of extensive planting.
- MAYETTE**—This is one of the finest dessert nuts grown, it is quite large, uniformly so, well shaped, with a light colored shell, the kernel is full fleshed, sweet and very late in budding out, which enables it to escape the disastrous effect of late frosts in the spring, it is also an abundant bearer. The Mayette was originated by a man by the name of Mayet, about 125 years ago, and the nut having ever since been a great favorite.
- PARISIENNE**—Large, excellent, starts late in the spring. Originated in the southeast of France and on account of its exceptional beauty named Parisienne, in honor of the capital of France. The nut is larger, broader at the small end than the Franquette and Mayette, and has a very pretty shape.
- PAEPARTURIEN**—Fruits when very young, very productive, producing large crops regularly, flowers late and is therefore not affected by frosts.
- SANTA BARBARA**—Originated by Joseph Sexton, of Santa Barbara, California. The nut is large, shell thin, so that it is readily broken by the hand. The kernel is white, full and sweet. The favorite variety in southern California.
- WHITE WALNUT (Butternut)**—A fine native tree, producing a large, longish nut, which is prized for its sweet, oily, nutritious kernel.

ORNAMENTAL DEPARTMENT.

No pains are spared to produce the finest specimens of the very best varieties of ornamental trees and shrubs. We list only those which are hardy.

Customers must not expect the young stock, however, to show the beauty of the fully developed tree or shrub; that beauty is reached only as age and growth are attained. Pictures and descriptions can be of fully developed specimens only, but the young stock when delivered may have even an apparently scraggy and irregular growth.

Great mistakes are usually made in planting large growing shade trees too close together, which prevents symmetrical development. One expects to remove the extra trees when they get larger, and they look so far apart when the young trees are planted proper distance apart. But one forgets to remove them until all chance of symmetry is lost. Large holes should be dug to give the roots a good chance.

Grass should not be allowed to grow up to the young trees or shrubs, but a reasonable space should be kept thoroughly cultivated about the roots at least until full vigor is established. Otherwise they will be stunted and utterly ruined.

Most deciduous trees and shrubs may be planted in either spring or fall, but evergreens should be planted in the spring only.

Ornamental trees require only such pruning as will prevent a straggling growth of head, or will bring the head up to a desired height. Shrubs should be pruned so as to bring out the most beautiful natural shape, and induce in flowering varieties the greatest amount of bloom. With flowering shrubs these principles may be observed. Varieties flowering in the spring should be pruned and pinched, and old wood cut out after flowering, from time to time through the flowering season, in order to produce growth of flowering wood, and not in the spring before blooming, which would remove the blossom buds. Those which bloom late in the season, like Hydrangeas, should be pruned in the spring before they start to grow, since their flowering wood is then about to be produced. There is no advantage in trimming all specimens to one form, or in shearing. The natural beauty in each specimen is to be developed. Hedges, however, are necessarily to be sheared into regular form.

DECIDUOUS TREES.

(Those varieties which do not retain their foliage during the winter.)

Alder (Alnus).

The cut-leaved varieties of the alder are among the most excellent ornamental trees in cultivation.

IMPERIAL CUT-LEAF (*Laciniata imperialis*)—A charming tree of stately, graceful growth, having beautiful, deeply cut foliage. Vigorous and very hardy. Unsurpassed for the lawn. Attains a height of about twenty feet.

Ash (Fraxinus).

This is a large family, but there are only a few varieties of especial merit.

EUROPEAN FLOWERING (*Ornus*)—Flowers greenish white, fringe like, appearing only on the ends of the branches. Blooms early in June. Twenty to thirty feet high when fully grown.

Bechtel's Double-Flowering American Crab.

One of the most beautiful of the many fine varieties of flowering Crabs. Tree of medium size, covered in early spring with large, beautiful, double fragrant flowers of a delicate pink color. From a distance the flowers have the appearance of small roses. A great acquisition, and certain to become very popular as soon as known. Blooms when quite young.

Beech (*Fagus*).

The variety which we describe are truly elegant lawn trees, and of a magnificence, when they attain age, to be found in but few other sorts.

FERN-LEAVED (*Heterophylla*)—Of elegant form, round and compact. Fern-like foliage, delicately cut. The tree has a wavy, graceful aspect, seldom seen in other sorts. When fully grown, twenty-five to thirty-five feet high.

PURPLE-LEAVED (*Purpurea*)—A most elegant lawn tree, of striking appearance. Early in the season the foliage is deep purple, later it changes to crimson, and again in the fall, to a dull purplish green. Forty to fifty feet when fully grown.

Birch (*Betula*).

Graceful, airy trees, suitable for all lawns. They are hardy and thrive in all soils.

EUROPEAN WHITE (*Alba*)—Silvery bark and slender branches. Fifteen to thirty feet high when fully grown.

PURPLE-LEAVED (*Feliis purpureis*)—A vigorous grower. Foliage purple. Twenty to twenty-five feet high when fully grown.

Catalpa.

The catalpas flower in July, when few varieties are in bloom, and are therefore desirable. The blossoms are large and quite fragrant. Large, heart-shaped, yellowish green leaves. Very effective, tropical looking lawn trees.

BUNGEI CHINESE CATALPA—A species from China, of dwarf habit, growing only from three to five feet high. Foliage large and glossy, a shy bloomer. Top-grafted on tall stem, it makes an effective umbrella tree.

GOLDEN (*Aurea*)—A dwarfish tree of rapid growth with large, heart-shaped leaves of golden yellow in the spring, changing to green later in the season. Makes a low bush, six to eight feet when fully grown.

KAEMPFERI, **JAPAN CATALPA**—Introduced from Japan by Siebold. A species of rapid growth, with deep green glossy leaves. Flowers fragrant, cream colored, speckled with purple and yellow, not so large as those of *syringæfolia*, panicle also is smaller and more loose, seed pods long and very narrow, two weeks later than *syringæfolia*.

SPECIOSA—A variety which is said to have originated in the west. It is finer and hardier than the common, hence better adapted for ornamental planting. Its blossoms open two or three weeks earlier than other sorts. A large, spreading tree.

Elm (*Ulmus*).

For street and park planting there is no finer tree than the noble American elm of our own forests. There are also other varieties of great value for the lawn.



BECHTEL'S DOUBLE-FLOWERED AMERICAN CRAB.

AMERICAN WHITE OR WEeping—The well known, native sort.

ENGLISH (Campestris)—Smaller leaves and darker colored bark than the American. The branches project from the trunk nearly at right angles. Forty to fifty feet when it has attained full size.

ENGLISH CORK BARK (Suberosa)—Peculiar leaves, rough on both sides. Young wood very corky. Twenty to thirty feet when fully grown.

Honey Locust.

THREE HORNED ACACIA (Gleditschia Triacanthus)—A rapid growing tree, delicate foliage, of a beautiful fresh, lively green, and strong thorns. Makes an exceedingly handsome, impenetrable and valuable hedge.



BUNGEI.

Horse Chestnut (Aesculus).

Horse Chestnuts are very desirable trees for the lawn, park or street. They are of elegant habit, magnificent foliage, and produce fine large spines of flowers in May and June.

RED FLOWERING (Rubicunda)—Forms a round compact head. Red flowers, very showy. The leaves are darker than the White Flowering. Blooms late in May, just after the White Flowering. A slow grower. Makes a tree twenty to twenty-five feet in height.

WHITE FLOWERING (Hippocastanum)—Decidedly the finest variety of this family. Makes a beautiful tree of regular outline. Exceedingly hardy and free from all diseases. Covered in May with magnificent white flowers tinged with red. Forty to fifty feet when fully grown.

Judas Tree or Red Bud (*Cercis*).

The Judas deserves to be classed among the most beautiful ornamental trees.

AMERICAN (*Canadensis*)—Delicate pink flowers. Blossoms before the foliage appears. Leaves perfectly heart-shaped. A pretty tree for the lawn. Makes a very small tree.

JAPAN (*Japonica*)—Deep green, heart-shaped leaves. Rich very pink flowers, quite large. Blooms early in spring. Makes but a small tree.

Laburnum (*Cytisus*).

The peculiar chain like blossoms of the laburnum are highly prized where a showy effect is desired.

COMMON OR GOLDEN CHAIN—A charming variety for the lawn. Smooth, shining foliage, and long, drooping racemes of golden flowers. Blooms in June. Ten to fifteen feet when fully grown.

SCOTCH OR ALPINE (*Alpina*)—From the Alps. Foliage larger than the Golden Chain but flowers are similar. Blooms in July. Twenty to thirty feet at full size.

Larch (*Laxia*).

EUROPAEA (*European*)—A rapid growing, pyramidal tree. Small, drooping branch. Makes a large tree.

Linden or Lime (*Tilia*).

The lindens are beautiful trees, and should be planted extensively. In addition to other qualities, their flowers are fragrant. They bloom in June.

AMERICAN OR BASSWOOD (*Americana*)—A rapid grower, beautiful native tree, with very large leaves. Fragrant flowers. Forty to sixty feet when fully grown.

WHITE OR SILVER-LEAVED (*Argentea*)—A handsome, vigorous growing tree. Large leaves, whitish on the under side, having a beautiful appearance when ruffled by the wind. Twenty to twenty-five feet when fully grown.

EUROPEAN (*EUROPAEA*)—Forms a fine pyramidal tree. The flowers are fragrant and the foliage large. Thirty to fifty feet when fully grown.

Magnolia.

The magnolia is indeed "a thing of beauty" but it is so exceedingly difficult to transplant with safety that we cannot advise our patrons to order them expecting to meet with entire success.

ACUMINATA (*Cucumber*)—A stately, pyramidal growing native tree. Leaves six to nine inches long, bluish green. Yellow flowers, tinted with bluish purple, the green fruit resembles the cucumber. Fifty to sixty feet when fully grown.

PURPUREA—An attractive dwarf variety with handsome flowers in May or June.

SPECIOSA (*Showy flowered*)—Shrubby and branching while young, but becoming a fair sized tree. Flowers a pale white and purple, cup shaped and three to five inches in diameter. Flowers large, glossy and massive.

TRIPETELA (*Umbrella Tree*)—A hardy native medium sized tree with enormous long leaves and large white fragrant flowers, four to six inches in diameter in June.

Maple (*Acer*).

The vigorous growth, fine form, hardiness, freedom from disease, and adaptability to all soils, renders the maple one of the best of trees for the purpose of shade. Has few equals for the street or park.

ASH-LEAVED (*Negundo* *Box Elder*)—A hardy native sort. Ash-like foliage, spreading head. Rapid growth. Very hardy.

NORWAY (*Platanoides*)—Large, compact habit, and broad, deep green, shining foliage. A stout vigorous grower. One of the best for the street or park. Forty to fifty feet when fully grown.

OREGON—A most graceful tree, with wide-spreading branches and large foliage.

PURPLE-LEAVED (*Purpurea*)—A strong robust grower. Leaves deep green on the upper side and purplish red underneath, making it very effective when planted with other sorts.

SCAMORE, *European* (*Pseudo-platanus*)—A handsome tree of upright growth, large foliage and smooth, ash gray colored bark. Twenty-five to thirty feet when fully grown.

SCARLET OR RED (*Rubrum*)—Produces small deep red blossoms before the leaves appear. In autumn the leaves change to brilliant scarlet. Thirty to forty feet when fully grown.

SUGAR OR ROCK (*Saccharinum*)—The well-known native variety. Valuable for the street or park. Fifty to sixty feet when fully grown.

SCHWEDLERII—A beautiful variety of Purple-leaved Norway with long shoots and leaves of bright purple and crimson color, which changes to purplish green on the older leaves.

SILVER-LEAVED OR WHITE (*Dasycarpum*)—Foliage bright green above and silvery underneath. An exceedingly rapid grower. Makes a large tree.

WIER'S CUT-LEAVED (*Wierii laciniatum*)—Grows very rapidly, and the shoots are so slender and drooping that it has a decidedly graceful appearance. The leaves are deeply and delicately cut. A large tree if undisturbed, but will stand severe pruning, and so may be easily adapted to small places.

Mountain Ash (*Sorbus*).

These are highly ornamental trees, particularly when covered with their bright, scarlet berries throughout the fall and winter.

AMERICAN (*Americana*)—Of coarser growth and foliage than the European, and having larger berries of a lighter color. White blossoms appear in early spring, followed by clusters of scarlet berries.

EUROPEAN (*Aucuparia*)—A more desirable variety than the American, being of finer growth and form. It blossoms during the early spring, after which the bright scarlet berries are formed in clusters. Twenty to thirty-five feet when fully grown.

OAK-LEAVED (*Quercifolia*)—One of the finest lawn trees, and very showy whether in bloom or berry. It forms a compact, pyramidal head. The leaves are bright green above and downy beneath. The blossom is white, forming in early spring. Very hardy. Twenty to twenty-five feet when fully grown.

Mulberry (*Morus*).

These are broad, low branching, large-leaved, fruit-bearing, ornamental trees, the demand for which is steadily increasing. They make large sized trees.

DOWNING (*Multicaulis*)—A very pretty lawn tree, bearing fruit of good quality. Remains in fruit for about three months.

NEW AMERICAN—A new variety, said to be superior to the Downing.

RUSSIAN—An extremely hardy, rapid growing tree from Russia. The foliage is abundant and attractive, said to be very desirable for silk worms. The timber is very valuable, also. Makes a very large tree.

Oak (*Quercus*).

AMERICAN WHITE (*Alba*)—One of the finest in America, of large size and spreading branches.

SCARLET (*Coccinea*)—A native tree of rapid growth and especially fine in autumn when the foliage changes to a bright scarlet.

Poplar (*Populus*).

Poplars are desirable where rapid growing varieties are wanted, and they are also very distinct and striking.

BOLLEANA—A very compact upright grower, resembling the Lombardy Poplar, leaves glossy, green above and silvery beneath. The bark of this variety is of a rich green color, giving it a distinct and striking appearance.

CAROLINA (*Monilifera*)—Of compact habit. A very rapid grower. A desirable tree for the seashore, and for our large cities, where escaping gas kills most trees. Fifty to sixty feet when fully grown.

LOMBARDY (*Fastigiata*)—From Italy. Remarkable for its erect rapid growth, and tall, spiral form. Of great value for planting with other trees to break the average height and form. Fifty to seventy-five feet.

SILVER-LEAVED OR WHITE (*Alba*)—Leaves large, green above and pure white underneath. Wonderfully rapid growth, widespreading habit. Has a bad habit of throwing up suckers from the roots.

Salisburya.

MAIDEN HAIR OR GINKO TREE (*Adiantifolia*)—One of the most beautiful lawn trees. From Japan. Beautiful, rich, glossy, fern-like foliage. Rapid growth. Rare and elegant. A tall upright grower.

Sycamore (Platanus).

ORIENTAL (*P. orientalis*)—As an ornamental tree for large grounds, or as a shade tree for street planting, this has no superior. It is a rapid grower, attains a large size, and presents a striking combination of majesty and gracefulness. The foliage is heavy and not subject to the ravages of insects.

Thorn or English Hawthorne (Cratægus).

The thorns are dense, low-spreading trees, and the varieties which we describe are exceedingly ornamental when in bloom. They also stand pruning well, and may be trained to assume picturesque tree forms. They are well adapted to small enclosures, are entirely hardy, and will thrive in all soils.

DOUBLE PINK (*Rosea flore pleno*)—A pretty tree at all times, but gorgeous in June, when it is covered with double pink blossoms.

DOUBLE WHITE (*Alba flore pleno*)—A highly ornamental variety on account of both foliage and flowers. Small, double white flowers. Blooms in June. Makes a pleasing contrast when planted with the pink and scarlet.

PAUL'S DOUBLE SCARLET (*Coccinea fl. pl. Paulii*)—Superior to any other variety and an elegant tree or shrub. The flowers are large, very double, borne in clusters, a rich crimson color, beautiful to behold. Blooms in June.

Tulip Tree (Liriodendron).

TULIPIFERA (White Hood, erroneously Yellow Poplar)—A very large native tree. Pyramidal habit, with broad, fiddle-shaped leaves. Tulip-like flowers.

Willow (Salix).

LAUREL-LEAVED—A fine ornamental tree with very large shining leaves.

ROSEMARY-LEAVED (*Rosmarinifolia*)—Budded about five feet from the ground, this makes one of the most unique and ornamental of trees. The branches are feathery the leaves silvery and the form very round and compact. It can be transplanted in any soil with perfect safety, and will endure almost any climate, never grows higher than about ten feet.

WEeping DECIDUOUS TREES.

The superior grace and excellence of the weeping varieties render them especially adapted to the yard or lawn. In our list will be found all of the kinds which we deem particularly attractive. Customers will, however, be saved disappointment if they will realize that it is impossible to deliver them from the nursery with the form and shape which they attain with age. It can no more be done than fruit trees could be delivered with the fruit on.

Ash (Fraxinus).

GOLDEN-BARKED WEEPING (*Aurea pendula*)—During the winter the bark is as yellow as gold, making a striking effect. When fully grown it is about eight feet in height.

Beech (Fagus).

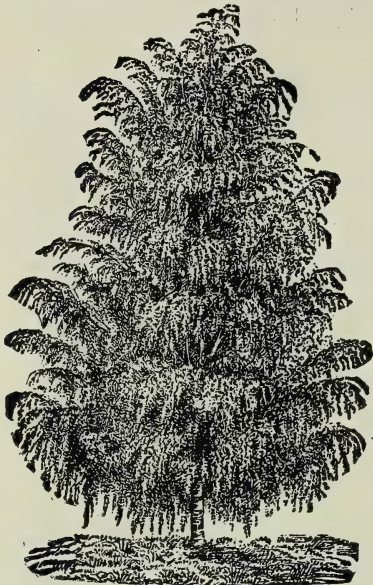
WEEPING (*Pendula*)—Of wonderful grace and beauty when covered with its rich, luxuriant foliage, but quite ungainly in appearance when divested of its leaves. Grows to the height of thirty feet.

Birch (Betula).

CUT-LEAVED WEEPING (*Pendula laciniata*)—This tree is indeed a picture of delicacy and grace. It presents a combination of attractive characteristics of which no

other variety can boast. Mr. Scott, in his "Suburban and Home Grounds," says of it, "No engraving can do it justice; like the palm trees of the tropics, it must be seen in motion, swaying in

the lightest breeze, its leaves trembling in the heated air, its white bark glistening through the bright foliage and sparkling in the sun, to enable us to form a true impression of its character. Makes a large tree of but little beauty when delivered from the nursery, but it develops into a thing of beauty.



BIRCH

Mountain Ash (Sorbus).

WEeping (Pendula)—One of the best known and most popular weeping trees. It is of easy culture, great hardiness and thrives in all soils. Its straggling branches, twisting and turning in every direction, with no training whatever, make a most picturesque and novel sight. Covered during the autumn with bright red berries. It is budded on stems about five feet high.

Mulberry, Tea's Weeping.

Perfectly hardy, forming a natural umbrella-shaped top or head, foliage handsome, a fine ornamental for the lawn.

Willow (Salix).

BABYLONICA WEeping—Our common and well-known weeping willow.



Elm (Ulmus).

CAMPERDOWN WEeping (Camperdown pendula)—Beyond question one of the most satisfactory weeping trees in cultivation. The growth is rapid, the foliage is luxuriant, it forms a fine-shaped head, and is very hardy.

Linden or Lime (Tilia).

WHITE-LEAVED WEeping (Alba pendula)—Slender drooping branches, and large foliage. One of the finest and a good variety for a large lawn.



WEeping MULBERRY

KILMARNOCK (*Caprea pendula*)—The best known and most universally planted of the finer weeping ornamental trees. Its great hardiness, vigorous growth, adaptability to all soils, easy culture, fine form, and unique appearance render it a general favorite. It is budded on Cromwell stocks, about five feet from the ground, and forms a perfect umbrella-shaped head in a few years, without pruning or training. It does not grow in height, but the branches droop gracefully to the ground. It occupies very little space, and will thrive near larger trees, and is, therefore, invaluable for small inclosures. It is also well adapted for cemetery lots.

NEW AMERICAN (*Americana pendula*)—Grafted about five feet high. An interesting variety, with delicate leaves and slender branches. Quite graceful and ornamental. Never grows large.

EVERGREEN TREES.

Evergreens are exceedingly difficult to transplant, and they should never be set in the fall. Even when planted in the spring, and under favorable circumstances, a large percentage are liable to fail. In the hands of amateurs, failure is almost certain in all cases. For this reason we do not like to sell evergreens, yet we can supply the varieties described below when desired. We cannot furnish sorts not named in this catalogue.

Arbor Vitæ (*Thuja*).

AMERICAN (*Occidentalis*)—A native variety, valuable for hedges. Stands shearing well.

GLOBE HEADED (*T. globosa*)—A dwarf round headed variety, quite pretty.



AMERICAN ARBOR VITÆ



BALSAM FIR



ARBOR VITÆ
PYRAMIDALIS

HOVEY'S GOLDEN (*Hovey*)—A seedling from the American. Yellowish green foliage. Quite dwarfish.

PYRAMIDALIS—The most beautiful of all the Arbor Vitæ, having dark green, compact foliage and remarkably erect form, perfectly hardy.

TOM THUMB—A very pretty dwarf variety of the American. Valuable for small enclosures or low hedges. Compact growth.

Ashberry (*Mahonia*).

HOLLY-LEAVED (*Aquifolia*)—Bright yellow flowers in May. Blush berries during the fall. Handsome foliage. Medium size.

Box.

COMMON TREE—From England. A handsome shrub with deep green foliage.

DWARF—The well known sort used for hedging.

Cypress (Cypressus).

LAWSON'S (Lawsonia)—Makes a large tree, with drooping branches and dark green foliage.

Fir (Picea).

BALSAM OR AMERICAN SILVER (Balsamea)—A very regular, symmetrical tree, assuming the conical form, even when young, leaves dark green above, silvery beneath.

NORDMANN'S SILVER FIR (Nordmanniana)—This majestic Fir, from the Crimean Mountains, is of symmetrical form, vigorous and quite hardy. Its foliage is massive, dark green, shining above and the slightest glaucous below, rendering it a very handsome tree throughout the year. Considered here and in Europe as one of the finest of the Silver Firs.



COLORADO BLUE SPRUCE

magnificent flowers, but they require a somewhat shady situation and a peaty soil, free from lime. There are several colors, the most attractive being white, red and purple, all of which we can supply.

Spruce (Abies).

COLORADO BLUE SPRUCE—A most beautiful variety discovered and disseminated from the Rocky Mountains, it is the nearest blue of any evergreen, very distinct in foliage and growth, fine, compact habit. In great demand as a lawn tree throughout the eastern states where fine specimens are established, proving it the best of all evergreen trees for the lawn. Foliage rich blue or sage color.

CONCOLOR (one color)—A distinct variety with yellowish bark on young branches. Foliage long and light green. A handsome tree; none better.

DOUGLAS SPRUCE—From Colorado. Large, conical form, spreading branches, horizontal, leaves light green above, glaucous below.

SILVER FIR OF COLORADO—Without doubt the finest of the Rocky Mountain evergreens. Tree of graceful habit, broad, handsome foliage, bluish above, silvery beneath. A grand tree, very distinct and exceedingly rare as yet.

Juniper (Juniperus).

IRISH (Hibernica)—A small tree or shrub of conical shape, very erect and dense. Desirable for cemeteries.

RED CEDAR—An American tree, varying in habit and color of foliage. Very ornamental.

HOLLY, ENGLISH (Ilex)—A small tree, with shining dark green thorny leaves, somewhat resembling the oak in form. In winter the tree is covered with bright red berries.

Pine (Pinus).

SCOTCH (Sylvestris)—A fine, robust, rapid growing tree, with stout, erect shoots and silvery green foliage.

AUSTRIAN OR BLACK (Austriaca)—A robust growing sort. Leaves long, stiff, dark green. Makes a large spreading tree.

RETINOSPORA, ERICODES (Japanese Cypress)—A dwarf shrub with bright green branches above and glaucous beneath, assuming a ruddy tint in winter. Very ornamental.

Rhododendron.

Rhododendrons are superb evergreen shrubs, producing dense clusters of

HEMLOCK (*Canadensis*)—Delicate, dark colored foliage, and drooping branches. Good for lawns, and also makes a good hedge.

NORWAY (*Excelsa*)—Of large and lofty appearance. Well adapted for large enclosures, and stands pruning well when used for hedges. It is exceedingly picturesque and beautiful, very popular and deservedly so.

AMERICAN WHITE—A tall tree, loose, spreading branches, and light green foliage.

Yew (*Taxus*).

ERECT ENGLISH—A very fine pyramidal variety of the English yew, with dark green foliage. Hardy and desirable.

IRISH—An upright growing variety, with deep, dark green foliage, branches erect, closely compressed, forming a pyramidal or broom-shaped head. A very distinct and beautiful variety.

HARDY FLOWERING SHRUBS.

We might extend our list of ornamental shrubs almost indefinitely, but as we desire to send out only the best of each class, we are necessarily confined to the following varieties. Our list is designed particularly for those who have small places, yet we feel confident that it embraces all the desirable kinds for the most extensive grounds.

While we aim to give the merits of each one due attention, we do not intend to exaggerate in describing a single variety. We are positive that not one will meet with a disappointment in selecting from the descriptions. Some of the very finest varieties are exceedingly ungainly when sent from the nursery, and customers must understand if one kind looks better than another when delivered, that it is not because we did not take as much pains with it in the nursery.

Althea or Rose of Sharon (*Hibiscus*).

The altheas have a well-deserved popularity. They are free growers, and not particular as to soil. They bloom in August and September, when few other sorts are in blossom. They attain a height of from six to ten feet.

DOUBLE PURPLE (*Purpurea fl. pleno*).

DOUBLE RED (*Rubra fl. pleno*).

DOUBLE PINK.

VARIEGATED LEAVED (*Fl. pleno fol. variegata*)—Distinctly variegated leaves, white and green. Blossoms so late that in some sections the buds are killed by the first frost.

Almond (*Amygdalus*).

The varieties which we name are hardy, charming shrubs, entirely covered in May with finely formed flowers. They attain a size of form from three to four feet.

DOUBLE ROSE FLOWERING (*Japonica fl. pl.*)—A beautiful small shrub, producing in May, before the leaves appear, small, double, rose-like flowers, closely set on the branches.

DOUBLE-WHITE FLOWERING (*Japonica fl. alba pl.*)—A pretty sort of small size, producing beautiful white flowers in May.

Azalea.

HARDY GHENT—This class of Azaleas are sufficiently hardy for open air culture and will stand our winters without protection, though a mulching of straw, or loose litter is desirable, at least until they become established. They are among the most beautiful of flowering shrubs, presenting the best effect where massed in beds. They require no other than an ordinary garden soil, with moderate fertilizing each year. Can be furnished in all colors.

MOLLIS—A splendid hardy species from Japan. One of the most valuable flowering shrubs. Flowers large and showy, like those of the *Rhododendron*, in fine trusses and of various colors.

PONTICA—A native of Asia Minor. A species growing three to four feet high, with small hairy leaves and yellow, orange and red flowers.

Barberry (*Berberis*).

PURPLE-LEAVED (*Purpurea*)—Foliage and fruit of a violet purple color, very striking. Attains a size of from three to five feet.

THUNBERGII (Japanese Barberry)—A most interesting and valuable shrub. Habit dwarf and spreading but delicate and shapely. Blooms in May, are white and a profusion of scarlet berries. Autumn foliage brilliant.

CANADENSIS—The common American species, forming a shrub with handsome distinct foliage. Flowers yellow, from April to June, succeeded by red berries.

Calycanthus or Sweet Scented Shrub (Florida).

Blooms in June, and at intervals through the summer. Flowers of a rare chocolate color, rich foliage. The wood and blossoms have a peculiar agreeable flavor. Three to five feet high when fully grown.

RED SIBERIAN (*Siberica foliis alba-marginatis*)—A remarkable shrub, of distinct merits. During the winter the bark is of a bright red color. The foliage is beautifully silvery margined. Grows to a height of from five to seven feet.



DEUTZIA

VARIEGATED CORNUS (*Mascula Variegata*)—The flowers are bright yellow and are borne in clusters in early spring, before the leaves appear. The foliage is beautifully variegated with white. Makes a small shrub.

Currant (*Ribes*).

The flowering currants are well-known shrubs, and their hardiness, healthiness and early season of blooming are desirable qualities. They attain a size of from four to six feet.

YELLOW FLOWERING (*Aureum*)—Bright foliage, small flowers, appearing in early spring.

CRIMSON FLOWERING (*Sanguineum*)—Small deep red flowers, blooming in early spring very abundantly.

Deutzia.

The deutzias are of Japanese origin, extremely hardy, luxuriant foliage, very attractive flowers, and very fine habit. All things considered, they have but few equals for the lawn.

CRENATA—Double white flowers tinged with rose. Blooms the middle of June. Five feet high when fully grown.

GRACILIS—A graceful and charming shrub, with pure white flowers. Blooms the middle of June. Two feet high when fully grown.

PRIDE OF ROCHESTER—One of the finest varieties, producing large double white flowers, the back of the petals slightly tinted with rose. It excels all of the older sorts in size of flower, profuseness of bloom and vigorous habit. Blooms early in June.

Dogwood (*Cornus*).

The varieties which we describe are distinct and valuable.

Elder (*Sambucus*).

Hardy, easily grown shrubs, and the new varieties are decidedly picturesque. They grow to be from four to six feet high.

GOLDEN (*Aurea*)—When they first appear the leaves are bright green, but if they are planted where they will have plenty of sun, they soon change to a golden green. The blossom, which resembles the common elder bloom, appears in July. The best effect is produced when they are transplanted with other shrubs, that the foliage may be rendered more conspicuous by the contrast.

VARIEGATED LEAVED (*Variegata*)—A rapid growing shrub, with foliage edged with yellow. Small white blossoms. Blooms in June. Very beautiful.

Exochorda.

GRANDIFLORA (Pearl Bush)—A vigorous growing shrub from China, forming a compact bush ten to twelve feet high, can be trimmed into any desired shape. The flowers are borne in slender racemes of eight to ten florets each, on light and wiry branches that bend beneath their load to bloom just enough to be graceful. It is perfectly hardy, flowers pure white. Very useful for cut flowers.

Filbert (Corylus).

PURPLE-LEAVED (Purpurea)—A very conspicuous shrub, with large, dark purple leaves, distinct and fine.



PANICULATA GRANDIFLORA

Forsythia.

Although not extensively planted, the Forsythias are worthy of attention. They make shrubs of about six to eight feet in height. Very beautiful.

VIRIDISSIMA—An elegant, hardy shrub. Bark and foliage a dark green color. Beautiful yellow flowers. Blooms in May before the leaves appear.

FORTUNEII—Growth upright, foliage deep green, flowers bright yellow. One of the best early flowering shrubs, the flowers appearing before the leaves. Very hardy.

Fringe (*Chionanthus*).

The fringes are among the most popular and satisfactory large growing shrubs. They are very hardy, do well in most any soil, and when in bloom they call forth universal admiration.



JAPAN QUINCE

PURPLE (*Ruscotinus*)—Also known as Purple Mist, Smoke Tree and Smoke Plant. Covered during mid summer with loose panicles of curious hair or fringe-like flowers, giving it a mist-like and novel appearance.

WHITE (*Virginica*)—A superb shrub, attaining a size of from ten to twenty feet. Has a compact, roundish form, large, glossy leaves, and drooping racemes of pure white flowers. Blossoms in May and June. An entirely different plant from above.

Honeysuckle Upright (*Lonicera*).

This species of shrub attains a height of from four to six feet.

FRAGRANT UPRIGHT (*Fragrantissima*)—A most desirable variety, with dark almost evergreen foliage. Small, very fragrant flowers. Blooms in May, before the leaves form. A valuable shrub.

RED TARTARIAN (*Tartarica rubra*)—A well known sort. Blooms in May, Bright pink flowers.

WHITE TARTARIAN (*Tartarica alba*)—Like the preceding, except the flowers are a dull white color.

Hydrangea.

The addition of the *Paniculata Grandiflora* has given the hydrangea a high rank.

Others of the new sorts are exceedingly beautiful and showy shrubs, but as they are not entirely hardy, we cannot recommend them as highly as we can the *Paniculata Grandiflora*.

OTAKSA—Foliage a deep green. Produces immense clusters of rose-colored flowers in profusion during July. A very free bloomer. Should be planted in tubs and stored in the cellar through the winter, and placed beneath trees or in some shady situation during the summer.

PANICULATA GRANDIFLORA—Absolutely hardy, thrives in all soils, grows rapidly and blossoms profusely. The flowers are pure white, afterward changing to pink, and are borne in large pyramidal trusses, often more than a foot long and six to eight inches in diameter. Begins to bloom in early August, and continues in bloom for several weeks. Wherever known it is conceded to be one of the finest flowering shrubs cultivated. It is equally valuable for planting singly or massing in beds. We heartily commend it to all lovers of the beautiful. It will give satisfaction. Attains a height of from three to five feet. Should be headed in every spring.

THOMAS HOGG—May be planted in the open ground if slightly protected during the winter. It blossoms from July to September. The flower is pure white, a free bloomer.

Japan Quince.

CYDONIA JAPONICA—One of the best known shrubs in cultivation. Very ornamental in early spring, as its bright scarlet flowers completely cover the branches before the leaves are formed. Makes a good hedge.

Lilac (Syringa).

Lilacs are too well-known to need an extended description. They are hardy, free-blooming shrubs.

CHARLES X—A strong growing sort. large, loose clusters of purple flowers, an improved variety of the foregoing.

CHINESE WHITE—Growth similar to Persian, but blooms nearer white.

JAPAN TREE LILAC (Syringa Japonica)—A species from Japan. Leaves thick, pointed, leathery and dark, flowers in very large panicles, creamy white and privet like. Makes a small tree and is desirable because of its distinct foliage and late blooming.

JOSIKA OR CHIONANTHUS LEAVED—Thick shining leaves and clusters of purple flowers, much larger than common lilacs.

PURPLE (Purpurea)—Blossoms early, abundant, reddish purple and fragrant.

PERSIAN—Attains a height of from four to six feet, small foliage, flowers bright purple, a native of Persia and a decided acquisition.

Plum (Prunus).

With the addition of *Prunus Pissardii*, the following plums are entitled to lavish praise as highly attractive and desirable shrubs:

PRUNUS PISSARDII (Purple leaved)—A splendid novelty from

Persia. It is a perfectly hardy, small-sized tree or shrub, of elegant appearance. The bark is black, and the leaves a rich purple, gorgeous to behold, retaining their bright color through the entire season. The ends of the growing shoots are brilliant red. Makes a small tree. Should be severely pruned.

PRUNUS TRILOBA (Double Flowering)—A very pretty little shrub, hardy and desirable. The flowers are upwards of an inch in diameter, semi-double, of a delicate pink color, appearing in May, and completely covering the branches.

Privet (Ligustrum).

Used chiefly for hedging, but the varieties we describe deserve prominent positions in the lawn as highly ornamental shrubs.

CHINESE PRIVET—A valuable new shrub, native of China and Japan. Flowers large, white, very fragrant, produced in great profusion, leaves long and shining, one of the hardiest of the privets, and distinct. A charming shrub which will be prized for its fragrant flowers, as well as for its handsome foliage.

CALIFORNIA (Ovalifolium)—Of great value as a hedge, and of such positive beauty as to be attractive when grouped with other shrubs. When planted single it forms a



SPIREA ANTHONY WATERER

very compact, dense, upright shrub, of medium size. The leaves are so glossy as to have the appearance of having been freshly varnished. The foliage hangs on until late in the winter, making it nearly evergreen.



VARIEGATED LEAVED (*Ovalifolium aureum*)—The foliage is distinctly bordered with golden yellow giving the entire shrub an appearance of brilliancy seldom seen in other shrubs. Of great value for the lawn or hedge. Makes a medium sized shrub.

Strawberry Tree or Burning Bush (*Euonymus*).

Also called spindle tree. A very showy bush. Its chief beauty consists in its bright red berries, hanging in graceful clusters from the end of the branches until midwinter. Grows to be from six to eight feet high.

Syringa or Mock Orange (*Philadelphus*).

Well-known and formerly in great demand. The Golden leaved should be in every collection.

GARLAND (*Coronaria*)—A well-known, hardy shrub. White, fragrant flowers. Blooms in June. Makes a large shrub.

GOLDEN LEAVED (*Foliis aureis*)—A small shrub of positive and striking beauty. The foliage is golden yellow, and retains its lovely color through the entire season. When set with other shrubs the contrast is very pleasing. White flowers. Blooms in June. Very hardy.

Spiraea.

SPIREA PRUNIFOLIA—The variety which we catalogue are exceedingly fine and interesting shrubs. They are hardy, easily grown, and as they bloom at different periods one may have flowers all summer by planting the entire list. They are all of low growth and require but little space.

ANTHONY WATERER—A new dwarf compact-growing shrub. Blossoms in broad, flat heads of beautiful deep red color. A perpetual bloomer.

AUREA—A striking variety of decided beauty. The leaves are bordered with golden yellow, giving it a picturesque appearance, particularly in June, when all the branches are covered with small double white flowers.

BILLARDI—Blooms nearly all summer, rose colored, fine, showy.

PRUNIFOLIA—This sort deserves great praise. It begins to bloom in May, and the branches are covered for several weeks with its pure white daisy-like flower. Very hardy. Of dwarfish habit. One of the best.

REEVESI—Narrow, pointed leaves. The flowers are white, quite large and borne in clusters, entirely covering the whole plant. Blooms in June.

VAN HOUTTEI—The finest of all Spiræas, a most charming and beautiful shrub. Having pure white flowers in clusters. Extraordinarily profuse in bloom, and the plant is a vigorous grower and very hardy.



SNOWBALL

Snowball (*Viburnum*).

COMMON SNOWBALL (*Sterilis*)—A popular shrub. Makes a large bush. Bears balls of pure white flowers in June.

PLICATUM OR JAPAN SNOWBALL—Handsome plicated leaves, globular heads of pure white natural flowers, early in June. It surpasses the common variety in several respects. Its habit is better, foliage much handsomer, flowers whiter and more delicate. One of the most valuable flowering shrubs.

Sumac (Rhus).

FERN LEAVED (Laciniata)—A hardy plant of moderate size with large beautiful fern-like leaves, milky white on under side, changing to a brilliant scarlet in autumn.

STAGHORN—A large shrub or tree, brilliant foliage and scarlet fruit in autumn.

Wiegela (Diervilla).

Of Japanese origin, producing in June and July, superb, large, trumpet-shaped flowers, of various colors, from the purest white to the richest red, very ornamental in the fall.

ALBA—One of the finest shrubs in the spring, very hardy, and a rapid grower, flowers white.

FLORIBUNDA—Of erect habit. Dark reddish purple. One of the best. A compact, slender grower, flowers medium outside dark red with lighter center.

ROSEA—The best known sort. From China. Rose colored, trumpet-shaped flowers. Blooms in June. Four to six feet.

VANHOUTTEI—New, rare and valuable. Pure white flowers, in clusters of about one inch in diameter. Blooms in June.

VARIEGATED-LEAVED (Foliis variegatis)—Leaves bordered with yellowish white, making the bush very conspicuous the entire season. Pink flowers blooming in June. A very desirable shrub.



WEIGELA

HARDY CLIMBING VINES.

Ornamentals of this class are so hardy, so easily grown, and so beautiful, that they deserve greater attention than they receive. No artist can produce pictures equal to the wealth of beauty displayed by the elegant Wistaria, the graceful Honeysuckle, or the charming and magnificent Clematis when in the glory of full bloom, and there is nothing in art that will in any degree compare with the gorgeous hues of the Ampelopsis after it assumes its brilliant autumnal tints.

Ampelopsis.

AMERICAN IVY OR VIRGINIA CREEPER (Quinquefolia)—Also called Woodbine. A very rapid grower, having beautiful dark green foliage, assumes rich crimson hues in autumn.

VEITCHII OR BOSTON IVY—Leaves a little smaller and more ivy-like in form than the foregoing. Overlapping each other, they form a dense sheet of green. The plant requires a little protection the first winter until it is established, but after that it may be safely left to care for itself. It grows rapidly and clings to the surface of even a painted brick wall with great tenacity. The foliage changes to crimson scarlet in autumn.

Aristolochia (Dutchman's Pipe).

SIPHO—A rapid grower, with magnificent foliage, ten to twelve inches in diameter, and curious pipe-shaped, yellowish-brown flowers.

Chinese Matrimonial Vine (Lycium Sinensis).

A vigorous climber, branching freely, and covered with bright purple star-shaped flowers, succeeded by brilliant scarlet berries almost an inch long, the contrast between the glossy, dark green foliage and shining scarlet fruit being exceedingly beautiful. Flowers and fruit continue forming throughout summer, when the fruit ripens and remains on the vine until winter. Of the easiest culture, thrives everywhere and in any soil.

Honeysuckle (*Lonicera*).

CHINESE TWINING (*Japonica*)—A well-known vine holding its color nearly all winter. Blooms in July and September and is very sweet.



WISTARIA

HALL'S JAPAN (*Halliana*)—A strong, vigorous, evergreen variety, with pure white flowers changing to yellow. Very fragrant, covered with flowers from June to November.

MONTHLY FRAGRANT (*Belgica*)—Blooms all summer. Flowers red and yellow. Very sweet.

SCARLET TRUMPET (*Sempervirens*)—A strong grower, and produces scarlet inodorous flowers all summer.

Ivy (*Hedera*).

The evergreen ivies often suffer in winter if exposed to the sun, and should therefore, be planted on the north side of the wall or building.

ENGLISH (*Helix*)—A well-known old variety, very popular.

VARIEGATED-LEAVED (*Fol. Variegata*)—With smaller leaves than the preceding, variegated with white.

Trumpet Vine (*Bignonia radicans*).

A splendid climber, vigorous and hardy, with clusters of large, trumpet-shaped scarlet flowers in August.

Wistaria (*Glycine*).

CHINESE PURPLE (*Chinensis purpurea*)—One of the most elegant climbing vines known, and a very rapid grower after it gets thoroughly established, sometimes making twenty feet of wood in a single season. Bears long clusters of pale blue flowers in May and June, and also in September. Extremely hardy. Attains a larger size than any other climber.

CHINESE WHITE (*Chinensis alba*)—Habit of growth similar to Chinese Purple, but the flowers are somewhat smaller and pure white. Blooms in June and September.

CLEMATIS

Although of recent introduction, the fine varieties of clematis are today preeminently the most showy and effective of all the hardy flowering vines known, so far as richness of color and elegance of the flower is concerned. Nothing can excel the surpassing beauty of the many colors of the several varieties. They are peculiarly adapted for covering pillars, trellises, walls, fences, rocks, etc., their exceedingly rapid growth (making from ten to twelve feet of vine in a single season) rendering them especially valuable for hiding from view any unsightly object. They are equally efficient when used as a bedding plant, covering a bed very quickly if pegged down occasionally. All of the varieties offered by us are entirely hardy, most of them are lavish bloomers, and the majority blossom the first season after transplanting. We deliver only a small root.

Coccinea (*Leather Flower*)—A curious bed-shape heavy petaled flower borne in profusion for a long season, color bright scarlet.

Henryii—Fine bloomer, flowers large, of a bright, beautiful creamy white, consisting generally of from six to eight sepals. June to October.

Jackmanni—This is a variety upon which Mr. Jackman bestowed his name. It is better known than any other, and still stands as one of the best. It is a strong grower and produces a mass of intense violet purple flowers from June to October.

CLEMATIS
COCCINEA.



CLEMATIS JACKMANNI

Madame Edward Andre—Flowers large, of a beautiful bright velvety red, very free flowering and continuous bloomer.

Paniculata—A great novelty from Japan. One of the most desirable, useful and ornamental of hardy garden vines, a luxuriant grower, profuse bloomer, with fine foliage. Flowers of medium size, very pretty and fragrant, produced in the greatest profusion in late summer.

Ramona—A new American seedling clematis. It is a strong, rampant grower, we think three times stronger than the Jackmani, and is very hardy. It is a free and perpetual blooming variety, both on the old year's growth and also on the wood of the current year, the color of the flower is a deep sky-blue, and very attractive, the size of the flower is larger than any variety we ever saw, very many as large as eighteen inches in circumference.

Duchess of Edinburg—This is without doubt the best of the double pure whites. Deliciously scented.

HEDGE PLANTS.

To plant hedges of evergreens, when plants are two feet high or over, no previous special preparation is necessary only that the ground is reasonably upland to be suitable for hedge purposes. Plow with two horse along where the hedge is to be planted and then plow back along same furrow and then plow out the centre ridge of about six inches in the centre of the dead furrow and then plow out the centre of dead furrow. Set a line so that it will come directly over said furrow at such a height as not to interfere with the workmen, then with spade throw out under the line deep enough so that plants will be two inches deeper than in nursery. Place plants 22 inches apart in the row putting mellow earth around the roots. If the ground is hard clay, sand must be drawn, and two or three shovelfuls put around the roots of each plant and then fill up with soil. Keep well cultivated first two or three seasons and if dry weather, should be watered occasionally. By this method a spruce hedge can be set, even after removing an old fence, without previous preparation.

Plant evergreens when 12 to 18 inches high, about 9 inches apart. Honey Locust and Osage Orange in double rows, about nine inches apart. Evergreens should be pruned in spring just before they commence growing.

American Arbor Vitae—Forms a handsome ornamental hedge of fairly dense growth.

Buckthorn (*Rhamnus*)—A fine, robust, hardy shrub of European origin, with dark green foliage, white flowers and small, black fruit. A popular hedge plant.

Hemlock—Of graceful habit, and fine foliage, but not so hardy, nor adapted to all soils.

Honey Locust—By its vigorous habit, and thorny character makes a good cattle or farm hedge.

Japan Quince, Privet and Dwarf Box—All make elegant ornamental hedges.

Norway Spruce—With careful pruning may be kept low and in shape, and grown in this shape is highly ornamental.

Scotch Pine, Austrian Pine, American Arbor Vitae—All well adapted for planting in belts for wind breaks.

Siberian Arbor Vitae—Is of thrifty, compact growth, fine form, great hardihood, and a deep green color, which its foliage retains throughout the year. Considered by many the best for the purpose.

Tom Thumb Arbor Vitae—For a low, ornamental hedge.



CLEMATIS PANICULATÄ

ROSES.

Nothing that we can say can add to the popularity of this most beautiful of all flowers. Those who appreciate the beauties of nature, prize roses above all things else in the ornamental line. While nearly all desire, and perhaps make an effort to have an abundance of them in their season, yet very many fail, and the failure to succeed is usually due to planting inferior bushes, thousands of which are sent out over the country every year at very low prices. Our roses cost more than the weak, puny, hot-house plants referred to, yet the results show that we give our customers as much for their money as any firm in the country. Our bushes are grown out-of-doors, in ordinary soil, and are as hardy and vigorous as it is possible to make them. When properly planted and cared for, they give perfect satisfaction. If the amount of bloom is not as great as is desired, all that is necessary is to fertilize freely and apply the pruning knife a little more freely the following spring, and this will insure an abundant growth of new wood, and it is the new wood that yields the bloom.

How to grow them—They succeed best in a deep, rich, clay loam soil. In preparing a rose bed or hedge, first prepare the soil for your plants as follows: If in the lawn, and the ground is sodded over, remove the sod if the ground is a stiff clay. the depth of four inches, the size you want your bed, spade up the ground to the depth of fifteen inches thoroughly, then prepare a compost as follows—two parts of leaf mold, on part sandy soil or leached ashes, on part good, well-rotted cow manure. Mix these thoroughly together and place six inches deep of this mixture on top of your bed. Spade it in thoroughly, mixing into the ground. If your ground is sandy use the same amount of clay loam and cow manure. If it is a clay loam use leaf mold two parts, and cow manure one part, and proceed the same as above, if it is a muck and the ground is well drained use a liberal amount of well-rotted cow or horse manure. Remember that the manure must be well rotted and mixed thoroughly through the soil. Green manure must never be used, as it will kill the plants if it comes in contact with the roots. Never set your roses in a low wet place, the ground must be thoroughly drained if it is low, although roses respond delightfully to a free application of water from the hydrant and cannot be grown perfectly without it. Roses should be cultivated if you wish to reach the perfection line. Never plant roses under the overhanging boughs of a tree. If possible, get a location where your roses will have same protection from the cold westerly winds, either from buildings, board fence or hedge if you want a first-class rosary, while the most of the Hybrid Perpetuals are hardy, they are much better with a little protection. Always get the best stock that can be procured.

How to Plant—When your roses come, place them in soft water twenty-four hours before setting, prune off all the broken roots. Plant your roses $2\frac{1}{2}$ feet apart. If set in rose beds 2 feet; in hedge, if set two rows side by side, $2\frac{1}{2}$ by $3\frac{1}{2}$ feet. This will give you ample room to cultivate them. When setting be careful to straighten out the roots and press the dirt well around them with foot or hands. Set them as deep as they grow in the nursery. You can tell by the dark earth-line on the rose stock. Budded roses should be set with the bud four inches under the ground. After setting cut tops of the weak plants six inches from the ground, and the strong plants eight inches, either fall or spring setting. If it is in the spring cover the top of your bed 1 $\frac{1}{2}$ inches deep with good rotted manure, so when you use the hydrant on your roses you will be feeding the plant liquid manure, which gives your roses the beautiful luster. If it is a fall set, after cutting the tops off, hoe the dirt up around your stalk to the top, and press around the plants, then cover three or four inches deep with good horse manure from the stable, which should have plenty of straw in it, leave this on all winter. When spring comes in March or April, owing to the earliness of the spring, remove all the manure and level up your bed. Put two inches of this manure on top of your rose bed, shaking out all the straw, dig this into the ground with manure fork. If you have no hydrant, put the manure, without shaking out the straw, on top of the bed to keep the ground moist. Use all of the soapsuds made from washings on your roses, as it is an excellent fertilizer and is good for them. Kerosene emulsion should be used on the roses as soon as the leaves are the size of your little finger nail, spray them once a week and oftener if it rains much. Spray under the leaves as well as on top. This will keep your roses free from insects. Never use poison on your roses as it is dangerous, some people have a mania for eating them. If you have the hydrant you need never have an insect to harm your bushes. As soon as your bushes begin to show leaves nicely (size of your finger nail) use your hydrant every night on them, turn down the stream so it is like rain, giving the full force of the stream. Use this on your bushes and wash them for two minutes every evening, it will wash off all larvæ so there will be none there to hatch. By doing this.

every night the leaves get accustomed to the water and they will bloom freely, giving you a beautiful supply of the gorgeous beauties. Roses should be pruned in March and about the last of June. When you prune in March, for the first three years, cut the weak shoots back two-thirds, the strong shoots one-half. After that level up your bush, by that time your rose should be established if you have grown it properly. Cut out the old canes, as they get scrubby, close to the ground to give place to the strong new shoots. Experience is the best teacher. Young shoots, if thrifty and strong, can be made to bloom in August if cut off in the later part of June. This checks their growth, and as the wood hardens it will throw out side shoots which will give you the most beautiful roses of the season. Clip off the ends of your bushes six to eight inches the middle of June or first of July. Those that have no roses on, cut off six or eight inches and it will soon throw out another shoot filled with buds. Roses should have a good coat of rotten manure every fall, and worked into the ground every spring. They should be kept clean from weeds or grass by cultivation.

Insects—For the aphid, syringe the plants daily with a tobacco solution, one pound of tobacco stems to five gallons of water. Rose bugs which work at the flowers must be picked off. The rose caterpillar glues two or more leaves together to form a shelter, press these leaves together with the thumb and finger. Insects which eat the leaves can be destroyed by applying white hellebore when the foliage is damp. For thrips and aphides a spraying or wash of whale oil soap will be effective.

TEA ROSES.

Bon Silene—An old rose, but unsurpassed for beauty of its buds. Light rose, sometimes rosy crimson.

Bride—Pure white, large, fine. Very fragrant.

Clothilde Soupert—One of the most prolific bloomers in our entire list and admirably adapted for outdoor bedding. Color white with pink centre.

Cornelia Cook—Extra fine, pure, waxy, white flowers. Extra large and perfect buds, fine winter bloomer.

Catherine Mermet—Bright flesh color, with the same peculiar lustre possessed by La France. Large, full and beautiful. One of the finest Teas.

Duchess of Edinburgh (Bengal)—Crimson bud changing light as it opens.

Duchess de Brabant—Rosy pink, edged with silver, large, semi-double, fine, fragrant.

Etoile de Lyon—This is considered one of the finest yellow bedding roses for outside planting. It is, moreover, one of the hardiest of the Tea section. It blooms freely, and every flower is a gem. It equals Marechal Neil in size, on strong bushes.

General Washington—Bright red with crimson shade, large, flat form.

Kaiserine Augusta Victoria—A strong vigorous grower, producing buds and flowers of enormous size. Color, pure white. We have no hesitancy in saying that this Rose is unequalled by any other variety of its color. A grand garden Rose, on account of its vigorous growth and hardness.

Madame Schwaller—A hybrid Tea having the fragrance of La France and the firmness of the Hybrids with the freedom of flowers of the Tea class. Rose-carmine, sometimes deep rose. A most abundant bloomer.

Mrs. John Laing—A seedling from Francois Michelon soft pink, large and of fine form produced in strong stems, exceedingly fragrant, one of the most valuable varieties for forcing, and flowers continuously in the open ground. The most beautiful rose of recent introduction.

Marshall P. Wilder—New, color cherry carmine, continues in bloom long after other varieties are out of flower. The finest H. P. rose yet introduced.

Marion Dingee—Deep, brilliant crimson, one of the darkest, if not the darkest, richest colored Tea rose in existence.



NIPHETOS

- Magna Charta**—Bright pink, suffused with carmine, very large, full and fragrant, with magnificent foliage. A free bloomer.
- Maman Cochet**—This is one of the most beautiful new Tea Roses that has been introduced in years. The growth is vigorous, with rich healthy foliage, and extra large flowers on long stout stems, very double and simply exquisite when in bud or half-blown. The color is a deep rosy pink, the inner side of the petals silvery rose.
- Marie Van Houtte**—White, slightly tinged with yellow, one of the handsomest Tea roses. Free grower and fine bloomer.
- Meteor**—Remarkably rich, dark velvety crimson; flowers of good size, very double, vigorous, bushy grower, with foliage of the deepest green.
- Niphetos**—This is the white rose par excellence, being unequalled for winter forcing and also excellent for summer flowering. Every shoot produces a bud, which is long and pointed, and white as snow.
- Papa Gontier**—Cherry red and glowing crimson, large size, constant bloomer, a fine rose for all purposes.
- Perle des Jardins**—No rose of its color ever cultivated for cut flower up to the present time is so valuable as this. Its color is a rich shade of yellow, large size and perfect form, tea fragrance, a healthy, free grower, and unequalled in profusion of bloom, either in the greenhouse in winter or in the open ground in summer.
- R. M. Henrietta**—A strong growing red climbing rose. It is a grand pillar rose in the South. Flowers full and well formed.
- Rainbow**—An elegant new striped Tea rose, of strong, healthy growth, and exceedingly free flowering habit. The buds are large, on strong stiff stems. Color a beautiful shade of deep pink, distinctly striped and mottled with bright crimson, elegantly shaded and toned with rich amber. It makes beautiful buds and flowers of a large size, with thick, heavy petals, very fragrant. A useful variety for cut flowers.
- Safrano**—Bright apricot yellow, tinged orange and fawn. Valued highly for its beautiful buds. Very profuse in bloom, and deliciously Tea scented.
- Sappho**—Buds fawn color, shaded with rose, the opening flowers shaded with yellow and fawny buff, center deep yellow, flowers large, full and globular, produced in great profusion.
- Sunset**—This new rose will eventually supercede many of the older winter-blooming varieties owing to its productiveness and its richness of both foliage and flower, color rich tawny shade of saffron and orange, in habit, identical with the well-known *Perle des Jardins*.
- Viscountess Folkestone**—The flower is delicately tinted flesh, almost white, and lustrous as satin. When in full bloom it is like a fine white pæony, but without a suggestion of stiffness.
- White Maman Cochet**—The name describes the new Rose—pure white, grand substance immense size, exquisitely fragrant and a free bloomer. It inherits all the good points of that grand variety, *Maman Cochet*. Buds long and pointed, keeping a long time when cut.
- White Perle des Jardins**—We think that every lover of White Tea roses will be delighted with white *Perle*. It will be found totally distinct from *Bride* or any other white rose. A great Rose.
- William Allen Richardson**—Orange-yellow, center copper-yellow. Very rich.

HARDY HYBRIDS.

- American Beauty**—This valuable rose is of American origin, being introduced by a Washington florist. It is equally valuable for forcing or for open-air culture. The flowers are a deep crimson color, of very large size, and the most fragrant of its class. It is a continuous bloomer. Should be protected in winter.
- Anne de Diesbach**—Brilliant, crimson, sometimes shaded with bright maroon. A superb garden sort, fragrant, one of the hardiest and best.
- Baronne de Bonstettin**—Rich, dark red, passing to velvety maroon, highly fragrant. Very double.
- Baroness Rothschild**—Light pink, cupped form, very symmetrical, without fragrance, very beautiful. A moderate grower, only.

- Black Prince**—Crimson shaded with purple, medium size, imbricated, form splendid.
- Coquette des Alps**—White, tinged with carmine, very fine, a very free bloomer.
- General Jacqueminot**—Brilliant crimson, large and very fine, one of the handsomest and most showy roses of this color. Beautiful in the bud. Semi-double when full blown. Of fine free growth, a universal favorite.
- Hermosa**—Light blush or flesh color, large, full and double, grows freely and blooms profusely, fine.
- John Hopper**—Rose, with rosy crimson center, splendid form.
- LaFrance**—Delicate silvery rose, very large and full, an almost constant bloomer, equal in delicacy to a Tea rose, the most pleasing fragrance of all roses, a moderate grower, semi-hardy.
- LaReine**—Bright rosy pink, very large, double and sweet, one of the best.
- Madame Caroline Testout**—Silvery rose, flowers large, double.
- Madame Charles Wood**—The flowers extra large full and double, color deep rosy crimson, sometimes brilliant scarlet with maroon shading, a constant bloomer.
- Madame Plantier**—One of the fine pure white roses, blooming in clusters.
- Paul Neyron**—Deep rose color, good foliage, by far the largest variety in cultivation.
- Red La France (Duchess of Albany)**—This variety is a sport from LaFrance, deeper in color, more expanded in form, larger in size. The flowers are deep even pink, very large and full, highly perfumed and of first quality in every respect.
- Striped LaFrance**—Striped LaFrance combines all the good qualities of a LaFrance in growth, fragrance, shape of bud and flowers, in fact, differs not from it except in color. It is nicely striped, the marking being plain and distinct, the variegation a beautiful bright rose on a satin pink ground.
- White LaFrance**—This beautiful variety, with flowers of pure white shading to a center of light rose, is a great favorite, on account of its great freedom of bloom, fragrance and large flowers. A vigorous grower, producing a great number of buds and flowers, a most valuable addition to the white varieties, excellent for planting in cemeteries. Small plants.



LA FRANCE


BOURBON ROSES.

- Madame Jos. Schwartz**—Extra large globular flowers, very full and deliciously sweet, color pure white, elegantly tinged and shaded with pale yellow and rosy blush. An exceedingly beautiful rose and a constant and profuse bloomer.
- Souvenir de la Malmaison**—Pale flesh color with fawn shade, very large, full, beautiful.

NOISETTE ROSES.

- Chromasella (Cloth of Gold)**—Clear golden yellow, large, very full and double.
- Marechal Neil**—Very bright rich, golden yellow, very large, full and perfect form, the petals are extra large and of good substance, of vigorous growth and a free bloomer. This is unquestionably the finest of all roses. Truly magnificent.
- Glorie de Dijon**—Combined colors of rose, salmon and yellow, large, full, globular, hardiest of roses.
- LaMarque**—Flowers of good size borne in large clusters, which are the distinctive features of the rose. Established plants bear thousands of blossoms, color pure white, one of the best known varieties.
- Solfaterre**—Clear sulphur yellow, large, full and double.

MOSS ROSES.

- Glory of Mosses**—Pale rose, very large, full and beautiful.
- Perpetual White**—Pure white blooms in large clusters.  Very mossy buds.

CLIMBING ROSES.

These are all hardy, vigorous growers, and bloom freely in June.

Baltimore Belle—Fine white with blush center, very full and double.

Caroline Goodrich (Climbing Gen. Jac.)—This rose has finely formed very double flowers, and its fragrance is most delicious. The odor is the same as that of General Jacqueminot.

Crimson Rambler (Japanese)—This wonderful rose has been thoroughly tried in all situations and has proved to be all that could be claimed for a new introduction, and it has far surpassed all that was hoped for it. As a climbing or running rose it has no equal. The foliage is rich dark green, the growth rapid and diverse, but its great beauty is when the plant is covered with a profusion of the brightest crimson partly doubled flowers which remain on a long time, this prolonging the term of its magnificence.

Dorothy Perkins—This is a splendid new shell-pink Climbing rose. It attracted much attention at the Pan-American Exposition where a bed of fourteen-months-old plants produced a show of bloom unequalled by any other variety, unless it was the famous Crimson Rambler. This new rose is of the same strong habit of growth as Crimson Rambler, and the flowers are borne in clusters of 30 or 40 and sometimes even 50 to 60. The flowers are large for a rose of this class, very double, sweetly scented and of a beautiful shell pink, a color that is almost impossible to accurately represent by lithography. It has flowered splendidly and has been very brilliant. This seems to me to be a great acquisition, and I believe it to be a good forcing rose. The individual flower is larger than the Crimson Rambler, but it is a beautiful shell-pink in color.

Pink Rambler—Possesses the same valuable features found in the White Rambler, with which it differs only in color of flower, which is a bright carmine.

Queen of the Prairie—Bright rose color, large, compact and globular, a very profuse bloomer. One of the best.

Russell's Cottage—Dark crimson, very double and full. Strong grower.

Seven Sisters—Large cluster of bloom, shaded to dark red.

White Rambler (Thalia)—Flowers are the size of a silver quarter, perfectly filled, very fragrant. Color pure white, sometimes tinged with blush. Blooms in clusters.

Yellow Rambler (Agalia)—A new climbing rose of the class and habit of the famous Crimson Rambler, flowers medium size, cup shape, nearly full, sweet scented, blooms in large clusters, color very light yellow.

SUMMER ROSES.

These bloom but once in early summer. They are hardy.

Harrison's Yellow—Not so durable as Persian Yellow, bright yellow, very showy and fine.

Persian Yellow—Deep golden yellow, double and very fine.

TREE ROSES.

These are grafted on tall stems of the Dog rose, forming a half weeping head three or four feet from the ground. They can be furnished by colors only, but the particular varieties grafted in the head cannot be named. Orders must be by color only.

PAEONIAS.

A splendid class of shrubs, flowering in all shades, from red to lilac and white, with blooms from four to eight inches in diameter. Many of them are very double, and have a delicate and refreshing fragrance. They are easily cultivated and require but little protection.

TREE PAEONIES.

Banksii—Rosy blush, with purplish center, double and fine. Makes a large slow growing shrub which increases in bloom each year, hardy and very desirable.

HERBACEOUS PAEONIES.

These are very beautiful, showy and easily cultivated plants, blooming from the beginning of May to the end of July. Sell by colors only. Flesh pink, scarlet, white.

MISCELLANEOUS BORDER AND HOUSE PLANTS.

We offer a fine assortment of the best varieties of these useful plants, which are exceedingly valuable on account of their hardiness, easy culture and showy appearance. Most of these will live all winter in open ground, and bloom freely every year. We name our leading sorts.

Anemone Japonica.

A distinct and beautiful species, flowers two and one-half inches in diameter, bright purplish rose, with golden yellow centers, borne in great profusion from September to November. Height, two and one-half feet, habit neat and compact, very desirable and effective as a pot plant, and in lines and masses in beds or mixed borders.

Dahlias.

The Dahlia is the grandest autumn flower we have. Nothing is its equal in any respect in September and October. It is in its glory when everything else is faded or fading, and surrenders only to the Frost King. Put Dahlia tubers in the ground when the season becomes warm, covering the neck some three inches. If many shoots start, thin them out. After flowering and before hard frosts, take up the plants, remove the tops, dry the bulbs a little, and put in the cellar until spring, when they can be divided and replanted. Look at them occasionally to see that they are not shriveling from too dry an atmosphere, nor starting the eye early in consequence of too much moisture and warmth.

Eulalia.

JAPONICA ZEBRINA—A most striking and distinct plant. Unlike most plants with variegated foliage the striping or marking is across the leaves instead of longitudinally, the leaves being striped every two or three inches with a band of yellow one half inch wide. Late in the fall it is covered with flower spikes that resemble ostrich plumes in shape, which when cut and dried, make handsome ornaments for the house in winter. It is perfectly hardy and when once planted will increase in beauty from year to year. Should be in every collection.

Hollyhocks.

A collection of fine double sorts, of several colors.

Hibiscus.

Valuable border plants, having handsome broad leaves and large showy blossoms. A general assortment.

Japanese Fern Ball.

This beautiful novelty from the Orient is a most decorative plant. It is constructed of fern roots and moss, and upon frequent waterings the fern leaves spring out from every point. The fern ball, which is furnished while dormant is, from six to eight inches in diameter.

Yucca.

ADAM'S NEEDLE—A handsome conspicuous plant, with long, narrow palm-like leaves and tall, upright stems, three to four feet high, bearing bell-shaped, creamy-white flowers in July.



YUCCA

SUMMER AND AUTUMN FLOWERING BULBS.

They require taking up in the fall, and to be kept from freezing.

Amaryllis.

FORMOSISSIMA (Jacobean Lily)—Flowers large, deep red.

JOHNSONIA—Dull brick red, with a star center.

Gladiolus.

These are among the most showy and brilliant of all bulbous plants. Nature is nowhere more lavish of her paint than upon the flowers of the Gladiolus. They should be planted out of doors in the spring—never in fall, as the bulbs will not stand freezing. They are, however, excellent for window culture, planted in vases either singly or in groups.

Tuberose.

DOUBLE, WHITE AND SINGLE—Flowers very fragrant. Late autumn.

PEARL—Its value over the common varieties consists in its flowers being nearly double in size, imbricated like a rose, and its dwarf habit, growing only eighteen inches to two feet. The fragrance and color same as common sort.

FLOWERING BULBS TO BE PLANTED IN THE FALL.**Cannas.**

For a brilliant show nothing can excel the Cannas. They are of the easiest culture, growing finely in any ordinary garden soil and producing quantities of immense spikes of bright colored flowers, until cut by frost. Dig the roots and store like dahlias.

Crocus.

In various colors. Single and double.

Hyacinths.

Among the bulbs used for winter flowers, the Hyacinth stands foremost on the list. Two methods are employed in flowering the Hyacinth in winter, one in glasses filled with water, the other in pots or boxes of soil.

Jonquils.

Pretty varieties of the Narcissus, having a very agreeable fragrance, adapted to either pots or out-door culture. The bulbs being small, six to eight may be put in a six inch pot.

Lilium (Lily).

The Liliums are entirely hardy, and with few exceptions quite fragrant and most of the varieties are exceedingly beautiful.

AURATUM (Gold-banded Lily of Japan).

CANDIDUM (common white).

LANCIFOLIUM ROSEUM (rose spotted).

LANCIFOLIUM RUBRUM (red spotted).

LILIUM HARRISII—Bermuda Easter Lily. Pure white, trumpet-shaped flowers, very fragrant. The finest lily grown.

TIGRIUM fl. pl. (Double Tiger Lily)—Bright orange scarlet with dark spots.



LILY OF THE VALLEY

Lily of the Valley.

The Lily of the Valley is as hardy as any plant can possibly be, and when planted in the open ground will increase pretty rapidly. For the house we have what are called "pips," young roots with flowering stems that will bloom in a few weeks after planting, and will flower well in baskets of damp moss or potted. For the garden we can ship either in the spring or autumn.

Tulips.

Owing to the late spring frosts, bedding plants cannot safely be planted before the early spring flowering bulbs are through flowering. Without these bulbs, for one or two months of beautiful spring weather, our garden would present a bare appearance. We know of nothing that for the amount of money invested will give a more gorgeous show during early spring, and there is nothing more easily grown than the Tulip. They thrive well in almost any soil. Should be planted during October and November.

DUC VAN THOL—Single and double, early and late.

MIXED.

PARROTS—Named varieties.

INDEX.

FRUIT TREES.

Apples	9
Apples, Crab	14
Apricots	22
Asparagus	34
Blackberries	32
Cherries	17
Currants	30
Gooseberries	29
Grapes	26
Nectarines	22
Nuts	35
Peaches	19
Pears	15
Plums	22
Prunes	25
Quinces	26
Raspberries	31
Rhubarb	35
Small Fruits	29
Strawberries	34

WEeping DECIDUOUS TREES.

Ash	43
Beech	43
Birch	43
Elm	44
Linden or Lime	44
Mountain Ash	44
Mulberry, Tea's Weep-	44
ing	44
Willow	44

EVERGREEN TREES.

Arbor Vitæ	45
Ashberry	45
Box	46
Cypress	46
Fir	46
Juniper	46
Pine	46
Rhododendron	46
Spruce	46
Yew	47

HARDY CLIMBING VINES.

Ampelopsis	53
Aristolochia	53
Chinese Matrimonial	53
Vine	53
Honeysuckle	54
Ivy	54
Trumpet Vine	54
Wisteria	54
Clematis	54

ROSES.

All varieties	58-62
---------------	-------

MISCELLANEOUS.

Hedge Plants	56
How to care for stock	
when received	4
Pæonias	62
Preface	3
Spraying	6
Spray Calendar	8

DECIDUOUS ORNAMENTAL TREES.

Alder	38
Ash	38
Bechtel's Double-Flowering American Crab	38
Beech	39
Birch	39
Catalpa	39
Elm	39
Honey Locust	40
Horse Chestnut	40
Judas Tree or Red Bud	41
Laburnum	41
Larch	41
Linden or Lime	41
Magnolia	41
Maple	41
Mountain Ash	42
Mulberry	42
Oak	42
Poplar	42
Salisburia	42
Sycamore	43
Thorn or English Hawthorne	43
Tulip Tree	43
Willow	43

HARDY FLOWERING SHRUBS.

Althea or Rose of Sharon	47
Almond	47
Azalea	47
Barberry	47
Calycanthus or Sweet Scented Shrub	48
Currant	48
Deutzia	48
Dogwood	48
Elder	48
Exochorda	48
Filbert	49
Forsythia	49
Fringe	50
Honeysuckle Upright	50
Hydrangea	50
Japan Quince	51
Lilac	51
Plum	51
Privet	51
Strawberry Tree or Burning Bush	52
Syringa or Mock Orange	52
Spirea	52
Snowball	52
Sumac	53
Weigela	53

BORDER AND HOUSE PLANTS.

Anemone Japonica	63
Dahlias	63
Eulalia	63
Hollyhocks	63
Hibiscus	63
Japanese Fern Ball	63
Yucca	63

SUMMER AND AUTUMN FLOWERING BULBS.

Amaryllis	63
Gladiolus	64
Tuberose	64

FLOWERING BULBS TO BE PLANTED IN THE FALL.

Cannas	64
Crocus	64
Hyacinths	64
Jonquils	64
Lilium	64
Lily of the Valley	64
Tulips	64

